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# IVANHOE

METAL REFLECTORS AND FITTINGS

*for*

INDUSTRIAL ILLUMINATION

CATALOG NUMBER 276

HOW TO PLAN A LIGHTING SYSTEM











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*for*

INDUSTRIAL ILLUMINATION

CATALOG NUMBER 276  
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GENERAL ELECTRIC CO.

AUGUST 15, 1918

IVANHOE-REGENT WORKS

of General Electric Company

CLEVELAND, OHIO

*Manufacturers of Ivanhoe Metal Reflectors and Regent Illuminating Glassware*



## SERVICE TO LAMPS

Mazda lamps are the most convenient and economical means of providing light. But whereas an installation of bare Mazda lamps will produce a good *volume* of light, the light radiates from the lamps in all directions, and a great deal of it is wasted. Besides, such light is glaring, and the shadows are deep and sharp.

In other words, light from bare Mazda lamps is raw material.

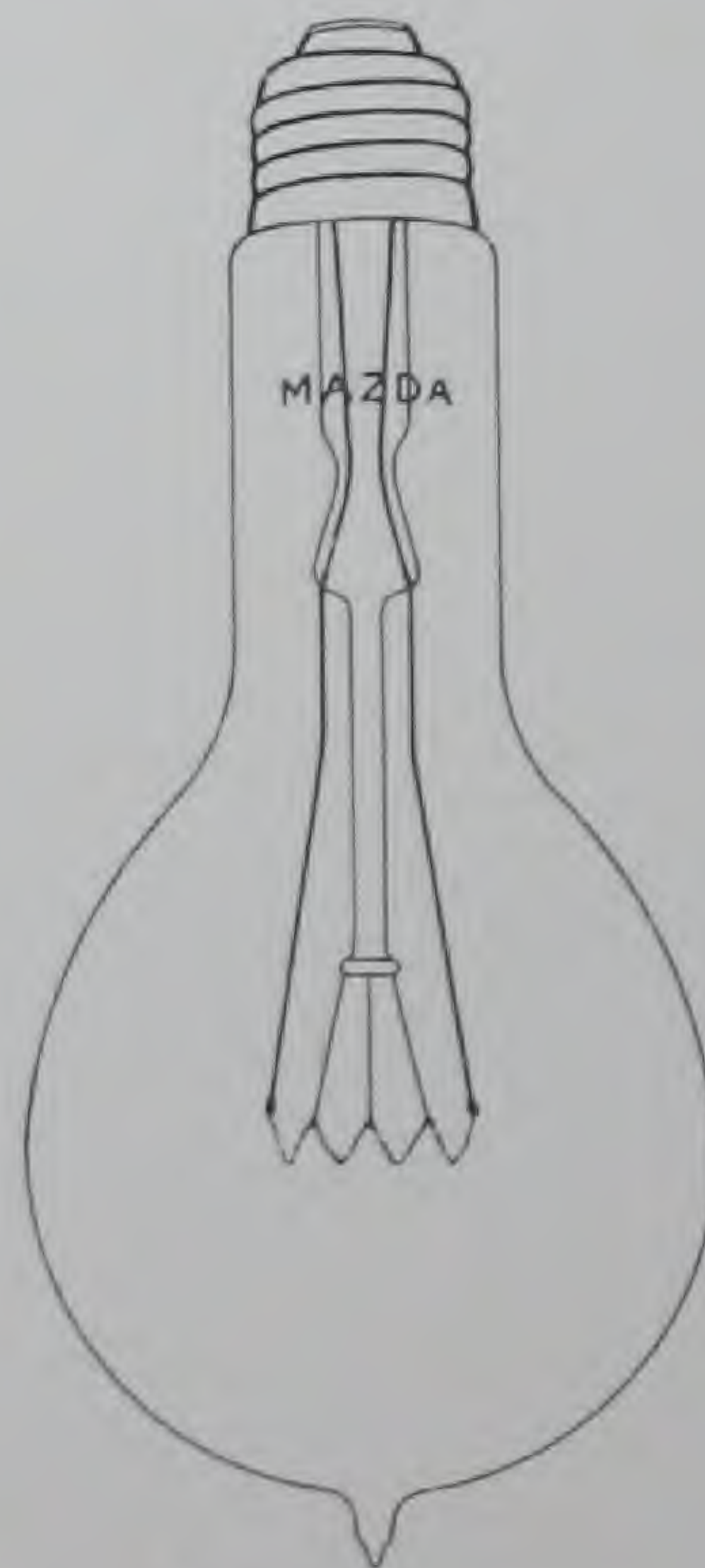
To utilize this raw material most effectively is the idea incorporated in the Ivanhoe slogan of Service to Lamps. Light, to be useful, must be transformed into illumination. The light must be directed where it is needed, and its quality improved by diffusion so that glare is reduced and shadows softened. These results are brought about by the use of scientifically designed reflectors, installed in accordance with approved engineering practice.

The need for good artificial illumination is evident when it is considered that near the middle of the day a work-bench near a window may have an intensity of ten or fifteen foot-candles of daylight. The light will be well diffused, casting shadows that are soft and luminous, so that the workman can perform his duties with ease and comfort. It is

obvious that when darkness comes on the work must suffer if it is performed under light of one or two foot-candles, and improperly reflected so that glare and sharp shadows are present.

Realizing the importance of good illumination, several states have recently had lighting codes drawn up by experienced engineers, and these have been enacted into laws. Through investigations carried on by state commissions, it has actually been found that 23% of industrial accidents are due to poor or faulty lighting. Also that production has increased 10% and upwards where the lighting has been improved. The state codes generally cover the required intensities for various classes of industry, define glare, give recommendations for mounting-heights, and in some cases even specify particular types of reflector equipment for certain classes of work.

There is an Ivanhoe reflector for every service, to make good the Ivanhoe slogan of Service to Lamps. But the final Ivanhoe ideal is Service to Industry—a service which improves working conditions so as to increase production, reduce spoilage, and raise the standard of quality of the goods manufactured.



The MAZDA C Lamp



# HOW TO PLAN A LIGHTING SYSTEM

## CLASSES OF LIGHTING

It is the object of this section to give general engineering data which will assist in providing better illumination most economically, without entering into a discussion of fundamental principles.

The first consideration in making a lighting installation should be to decide what kind of lighting is best adapted to the particular industry involved.

All industrial lighting may be divided into three classes: General Lighting, Group Lighting, and Local Lighting.

### General Lighting

With General Lighting, the room is lighted as a whole without reference to the work done at any particular point. With this system the light should be sufficient for the character of work performed at every point in the room. The distributed unit system is employed, in which lights are arranged in imaginary squares, or rectangles nearly square, with a lamp at the center of each. Where coarse work is performed the squares may be large; where fine work is performed they should be small. A size of square and mounting-height which call for the use of the standard Bowl or Dome reflector (see Figure 5) is usually the best, but for fine work the Reflecto-Cap Diffuser, correctly spaced, should be used.

For coarse work, however, and for such places as warehouses, distributing type reflectors are desirable, with the spacing between outlets from two to two and one-half times the mounting-height.

### Group Lighting

Group Lighting, or, as it is often called, Localized General Lighting, consists in lighting a particular

group of machines, or a particular area, by General Lighting, in which the light units are placed with reference to the work so as to illuminate it from the best direction. This type of lighting is particularly suitable for large rooms with many machines of the same type, covering for example such operations as weaving, cotton spinning, buffing, metal spinning, small printing-press work, etc. Figure 2 shows the application of Group Lighting over looms in a large silk mill. It is sometimes difficult to distinguish between General Lighting and Group Lighting, but in the former the room itself is lighted without reference to the location of the work, while in the latter the lights are always placed with particular reference to the location of the work.

Group Lighting is growing in favor, and is being successfully applied to classes of lighting formerly handled only by Local Lighting.

### Local Lighting

Local Lighting is the lighting of any individual machine or operation, usually with a single lamp and reflector. It is ordinarily employed to supplement General Lighting of a low intensity. Local Lighting is used on work-benches, lathes, sewing-

machines, punch presses, drawing-presses, or for any kind of work where a light may be needed from a nearly horizontal direction, or where a high intensity of illumination is required over a small area. Usually angle or focusing reflectors with small lamps are employed for this work. Number 634, page 22, is a small reflector used with 10 or 15-watt Mazda lamps. It is primarily for sewing-machine lighting, but may be used for any similar class of work



FIGURE 1. A Good Example of General Lighting in an Automobile Factory Equipped with Ivanhoe Bowl Type Reflectors





FIGURE 2. Group Lighting in a Silk Mill

where Local Lighting is required. Angle Reflectors in 40 and 60-watt sizes, and the DAF-40 and DAF-60, are good reflectors for Local Lighting with their corresponding sizes of lamps. A good example of Local Lighting is illustrated on page 29 under *Anderson Self-Adjusting Arms*. In Local Lighting it is usually desirable to have some flexible means of supporting the lamp and reflector in order that an operator can place his light source at any position relative to the work. Following the Ivanhoe policy of Service to Lamps, this catalog lists a line of Anderson Self-Adjusting Arms which are appropriate for all classes of Local Lighting.

## WHERE AND HOW TO USE DIFFERENT TYPES OF REFLECTORS

In order to meet all the requirements of industrial plants, the Ivanhoe line offers several types of standard reflectors for each class of lighting, as follows:

For General Lighting	The Reflecto-Cap Diffuser. R L M Standard Dome Reflectors. Bowl Type Reflectors. Vapor-proof Units.
For Group Lighting	The Reflecto-Cap Diffuser. R L M Standard Dome Reflectors. Bowl Type Reflectors.
For Local Lighting	Small Angle Reflectors. Small Bowl Reflectors. Special Service Reflectors.

These various standard reflectors are described in detail in the paragraphs which follow. The Ivanhoe line also includes other reflectors, designed in response to special demands, such as the Focusing Type, the Wide Type, and the Mazda C Enclosing Units, and these are also described in the following paragraphs.

### The Reflecto-Cap Diffuser

Where fine and accurate work is performed, requiring a high intensity of illumination without sharp shadows or glaring reflections, the Ivanhoe Reflecto-Cap Diffuser should be used. This type of unit is adapted to fine machine work, jewelry manufacturing, printing, cabinet work, pattern making, various operations in the textile industries, and fine finishing operations, as on furniture, pianos and automobiles. The unit is so constructed

as to cut out all direct light from the lamp, so that glaring reflections from bright surfaces are practically eliminated. The light is diffused from a large porcelain reflecting surface, which softens shadows and lowers the brightness of the unit.

These units are usually installed following the recommendations in the paragraph on General Lighting, but can sometimes be used to good advantage spaced with reference to the work, as in Group Lighting. They may be spaced a distance apart one and one-half times their mounting-height above the work, and this ratio should rarely, if ever, be exceeded.

### Dome or Distributing Type

Use R L M Standard Dome for Mazda C Lamps.

Use Shallow Dome Type for Mazda B Lamps.

These reflectors are generally applicable to any industries which may be classified as Rough Manufacturing, Medium Manufacturing, or Fine Manufacturing. With them a great deal of light is directed at the higher angles, and they are, therefore, especially suitable for operations where the work is performed on vertical surfaces. The depth of the R L M standard dome is such that ample protection from the glare of the lamp filament is provided when the reflector is used on the average mounting-height, and this is particularly desirable when Mazda C lamps are used. However, best practice requires that either a bowl-frosted lamp, or an opal cap, be used to conceal the lamp filament entirely.



When these reflectors are used it will usually be in accordance with the rules for General Lighting. The distance apart should be approximately one and two-thirds times the mounting-height above the work. This ratio can be increased to two or two and one-half where uniform illumination is not required, as in warehouses and spaces where rough work is performed.

### Bowl Type

Rules for the installation of the bowl type reflector are very closely related to those given for the Dome Type in the preceding paragraph, but with this type the lamp filament is shielded at a lower angle, and Bowl reflectors are, therefore, often preferable to Dome reflectors for General Lighting. This type is especially suitable for installations where reflectors must be mounted low, in order that operators will not be annoyed by excessive glare. The distribution of light is rather strongly downward, and for this reason the Bowl Type is preferable for installations where reflectors must be mounted at a considerable height to clear cranes, or to conform to the construction of the building. Bowl reflectors are also suitable, in the smaller sizes, for Local Lighting where a high intensity is desired over a small area. They can, therefore, be used in either one of the three classifications, namely, General Lighting, Local Lighting or Group Lighting.

Bowl reflectors should be spaced a distance apart approximately one and two-thirds times the mounting-height above the work for either General or Group Lighting, and when used for Local Lighting, must, of course, be located with reference to the work.

### Angle Type

Angle type reflectors may be classified as special service reflectors. They are particularly desirable in the large sizes in such industries as erecting-shops, machine shops where traveling cranes are used overhead, and similar classes of work. In such installations the overhead lighting often comes from reflectors mounted rather high, and it is usually necessary to build up the illumination on the working-plane from the side. In such cases Angle Reflectors are mounted along the side walls below the crane rails, at a suitable mounting-height, the distribution being such that the light is directed away from the wall, and toward the center of the room. In such installations the vertical illumination is built up, and light is received upon the work from each side, as well as directly overhead. This is an advantage in softening shadows. In the smaller sizes this type is very good for Local Lighting, where outlets must be

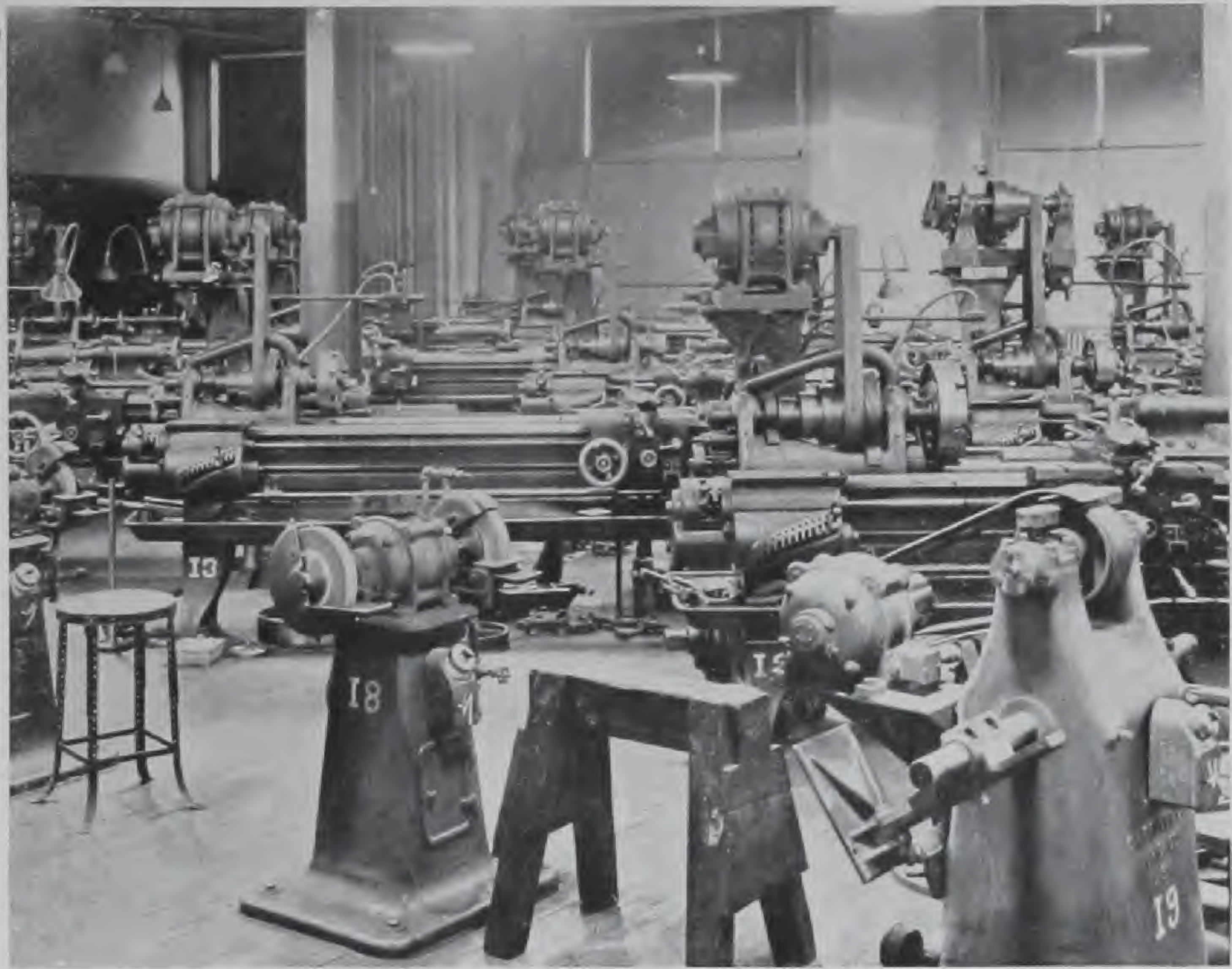


FIGURE 3. Note the well-diffused light, and the absence of sharp shadows, in this machine shop illuminated with the Ivanhoe Reflecto-Cap Diffuser

located close to the work and it is desirable to screen the lamps from the operator.

Angle reflectors are required for sign and billboard lighting, and are being used extensively for this class of lighting. Special installation data is available for this class of service and may be had on request.

### Focusing Type

The use of Focusing Reflectors for General Lighting is limited to installations where an aluminum-finish reflector can be used on high ceilings. The distribution of light is strongly downward, so that the light is confined to a small area. For uniform illumination the reflectors must be spaced very close together, the distance between them equaling three-fourths their height above the working-plane.

These reflectors, in the small sizes, are also well adapted to Local Lighting. They are finished in aluminum only, and in sizes to accommodate Mazda lamps of 100 watts and smaller.

### Wide Type

The Wide Type should be used only for outdoor lighting, as in yards, and on platforms, where a wide distribution of light is required, and it is not important that the lamps be screened. Reflectors are furnished in the R style only, with a solid top of rigid construction, containing a porcelain socket. The reflectors are weatherproof and easy to wire.

### Mazda C Enclosing Units

With the advent of the larger sizes of Mazda C lamps, there came a demand for this type of completely enclosing units for display lighting, the lighting of store fronts, and similar outdoor lighting. These units are of heavy construction, and





will stand up satisfactorily under the varying conditions of the weather. The globes are excellent diffusers and their absorption is low.

This type of unit is sometimes used indoors, for General Lighting, and in such cases it is preferable to use the unit with the reflector in order to take advantage of the increase in downward light.

### Special Service Reflectors

There are certain types of reflectors which were developed for special classes of service, and their application is, therefore, limited to the class of service for which they are designed. Among these reflectors are some for tennis court lighting, and a number of small reflectors for Local Lighting, all of which are described fully on page 22; and reflectors for vapor-proof fittings.

Vapor-proof units are required in such industries as powder plants, flour mills, oil refineries, and

similar industries where it is necessary to protect the electrical connections from acid fumes and inflammable vapors. Such equipment must be of rigid construction, and able to withstand atmospheric conditions. The Ivanhoe material listed for these services will be found to give entire satisfaction. The Ivanhoe vapor-proof unit is listed complete with a heavy top casting or holder, heavy porcelain-enameled reflector, and vapor-proof enclosing globe; and Dome Type reflectors in various sizes are listed for use with the Crouse-Hinds Company's Types V, VH, VO and VN Condulets.

Vapor-proof units should be spaced apart approximately one and two-thirds times the mounting-height above the work. This ratio may be increased in rough work to two or two and one-half times the mounting-height.

## INTENSITY OF LIGHT REQUIRED FOR VARIOUS KINDS OF WORK

For the effective and economical production of work, it is important that a sufficient intensity of light be provided. The following table shows what intensity in foot-candles is required for each class of manufacturing.

It provides for a range of choice by suggesting limits of intensity, as "2-4," "3-5," "4-8," "7 and up-

ward." For best results it is not only preferable to provide wattage sufficient for the higher values, but it is advisable to increase these values from 20 to 40%—depending upon local conditions—in order to take care of depreciation caused by dust and dirt.

Class of Work†	Foot-Candles	Watts Per Square Foot		Type of Reflector and Lamp
		Large Room*	Small Room*	
For Rough Manufacturing Operations, such as: Rough Assembling, Rough Forging, Rough Woodworking, Ice Making, Pottery, Lumber Mills, Tanneries, etc.	2-4	0.37	0.55	Dome Type with Clear Lamp
		0.40	0.60	Dome Type with Bowl-framed Lamp
		0.45	0.68	Bowl Type with Clear Lamp
		0.43	0.65	Dome Type with Opal Cap
For Medium Manufacturing Operations, such as: Medium Woodworking, Rough Machining, Rough Bench Work, Automobile-Machine Work, Meat Packing, Paper Making, Laundry, Bakers, etc.	3-5	0.56	0.85	Dome Type with Clear Lamp
		0.60	1.00	Dome Type with Bowl-framed Lamp
		0.65	1.05	Dome Type with Opal Cap
		0.70	1.10	Bowl Type with Clear Lamp
For Fine Manufacturing Operations, such as: Fine Assembling, Leather Working, Fine Woodworking, Fine Lather Work, Tobacco Manufacturing, Fine Sheet Metal Working, Manufacturing Light-Colored Textiles, etc.	4-8	0.75	1.20	Reflector-Cap Diffuser
		0.85	1.70	Dome Type with Clear Lamp
		1.00	1.80	Dome Type with Bowl-framed Lamp
		1.05	1.90	Dome Type with Opal Cap
For Extra Fine Manufacturing Operations, such as: Watch and Jewelry Manufacturing, Engraving, Type Setting, Shoe Manufacturing, Enameling, Manufacturing Dark-Colored Textiles, etc.	7 and Upward	1.10	2.00	Bowl Type with Clear Lamp
		1.20	2.15	Reflector-Cap Diffuser
		1.4	2.5	Dome Type with Clear Lamp
		1.5	2.5	Dome Type with Bowl-framed Lamp
		1.6	2.7	Dome Type with Opal Cap
		1.7	2.8	Bowl Type with Clear Lamp
		1.8	3.0	Reflector-Cap Diffuser

†The Reflector-Cap Diffuser is not recommended for installations where the polished cap is exposed to deteriorating elements.

\*Rooms are considered large when their width is five times their height; rooms are considered small when the width and height are equal. Rooms intermediate in proportion require proportionate intermediate values of watts per square foot.

FIGURE 4. Intensities in Foot-candles Recommended for Various Manufacturing Operations, and Corresponding Watts per Square Foot Required with Various Types of Reflectors



## SPACING OF OUTLETS

In the preceding paragraphs the correct *arrangement* of outlets for both General and Group Lighting has been pointed out, as well as the types of reflectors to be used. The spacing chart (Figure 5) shows the correct *spacing* of outlets for different types of reflectors and various heights of ceiling. If the type of reflector has been chosen, and the mounting-height is known, the proper spacing can be ascertained by locating the point where the diagonal line intersects the horizontal line corresponding to the mounting-height. The vertical line intersecting this point represents the average distance between outlets. In like manner either the mounting-height or the type of reflector can be ascertained if the other two factors are known.

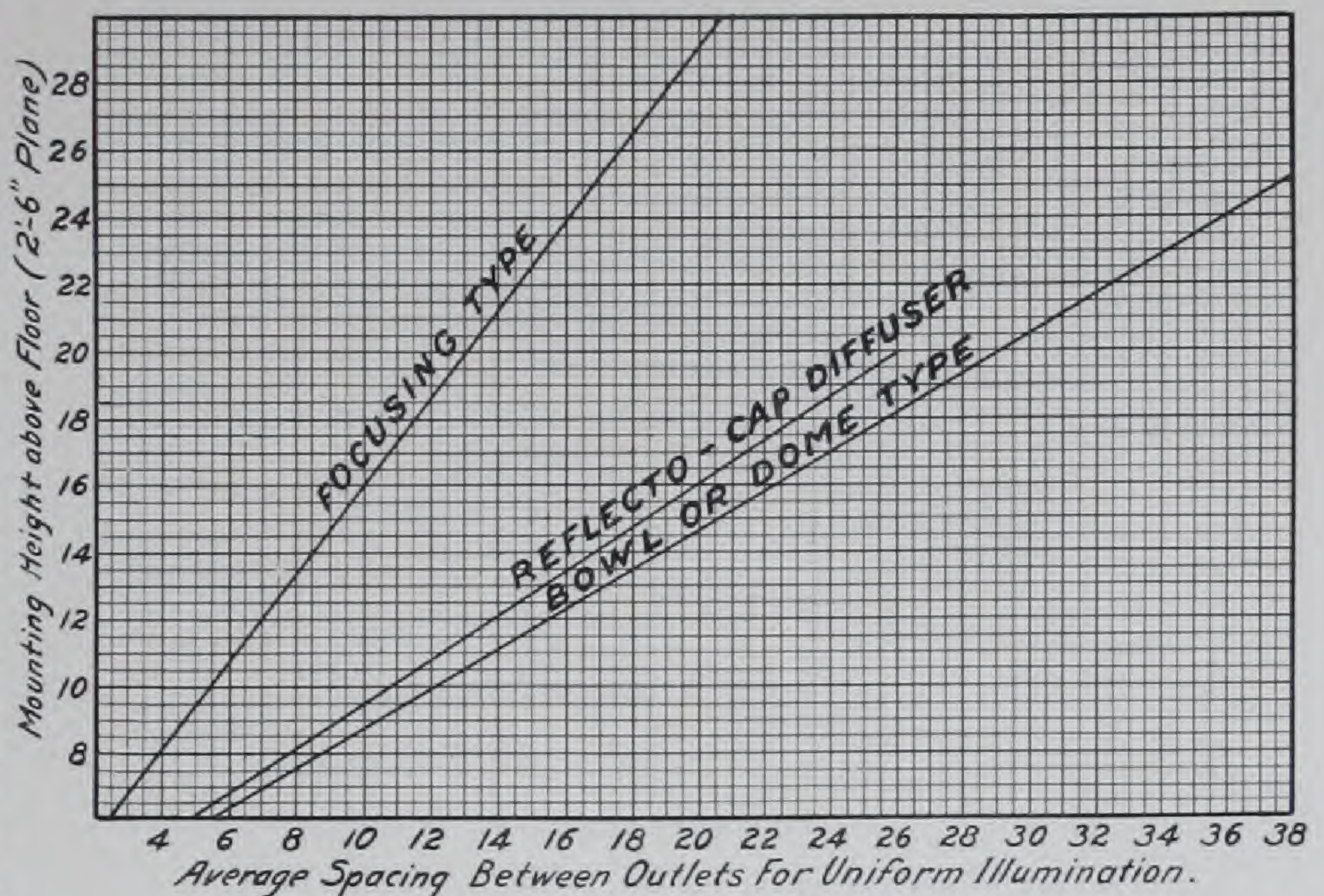


FIGURE 5. Spacing Chart

## SELECTION OF LAMPS

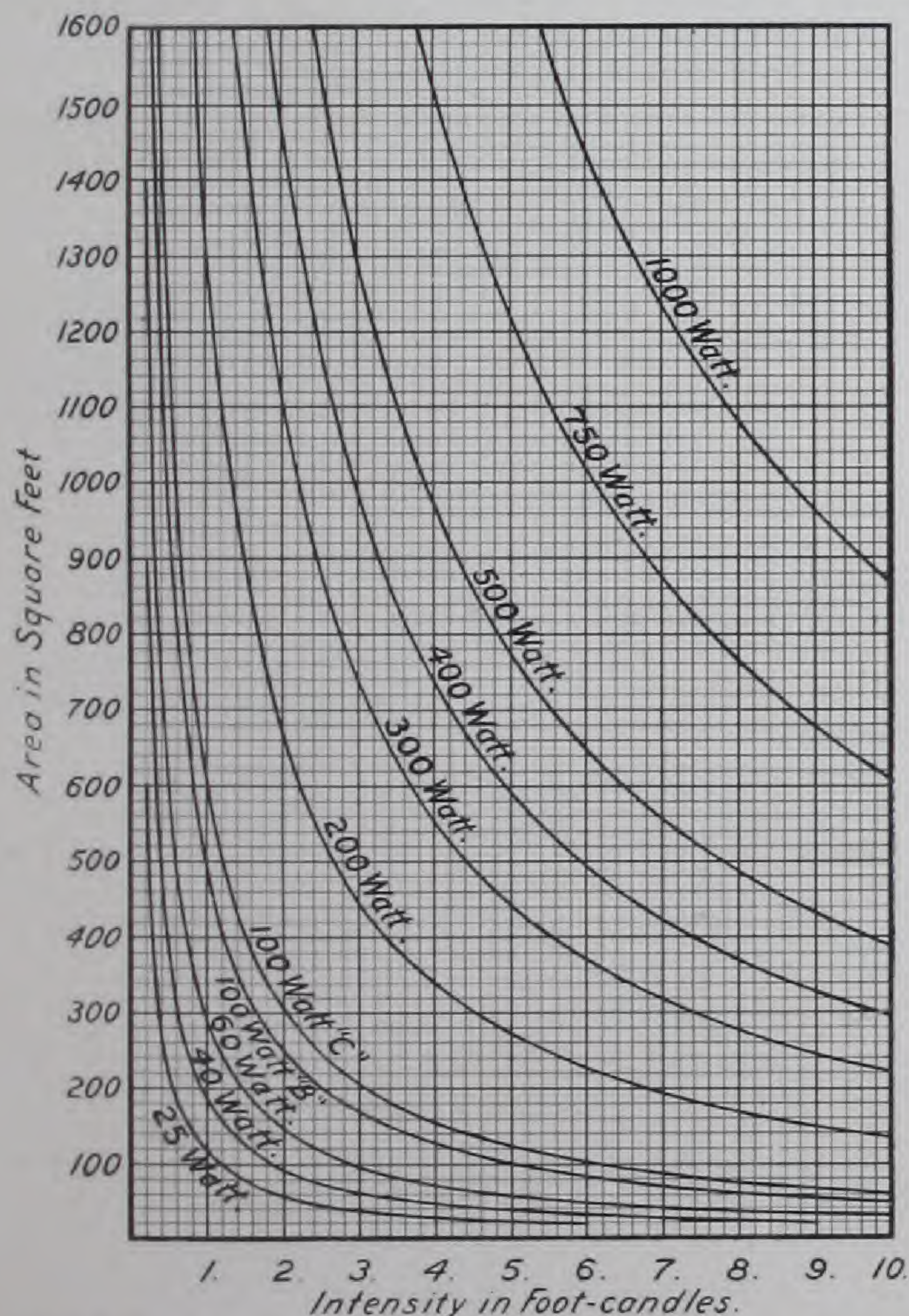


FIGURE 6. Chart for Determining Size of Lamp Required

On account of the small effect of ceiling and wall reflection in lighting systems using metal reflectors, it is possible to present a chart which will show at a glance the size of lamp at a given spacing, or the spacing for a given sized lamp, to obtain any desired intensity. This chart assumes rooms of average size with average surroundings. In small installations (6 lights or less), especially if the walls are dark, it is well to allow 5 to 15% more light than that shown by the chart. In very large installations, especially if the walls are light, the efficiency will be somewhat better than the chart indicates. For the Reflecto-Cap Diffuser, an increase of 25% in wattage should be made.

The area to be lighted by General or Group Lighting is divided into squares, or rectangles as nearly square as possible, and a light is placed at the center of each. Knowing the area of this space, and the foot-candle intensity desired, reference to the chart will show what size lamp to use. Select the lamp whose curve is next above the point of meeting of the horizontal line representing the area, and the vertical line representing foot-candles. If the point does not fall near a lamp curve, the size of the square may be increased or decreased. If it is desired to use a certain size of lamp, the problem may be worked the other way; starting with the size of lamp and the foot-candle intensity desired, the area which the lamp will illuminate can be determined from the chart.



## CONSTRUCTION OF IVANHOE REFLECTORS

Ivanhoe reflectors are made with three distinct types of extension to conform to different systems of wiring and installing. These are the B-heel extension, the extension equipped with the D holder, and the R extension.

### The B-Heel Type



The B Heel is the name applied to the fitter at the top of one type of extension. It provides a convenient and practical method of attaching the reflector to a separable holder. Its advantage is, that when the reflector is used with an Ivanhoe socket holder, or any standard Form O holder, it is possible to complete all wiring before hanging the reflector.

### The D Type

A second type of extension is furnished with a brass clip ring reinforced by the D clamp strap, or holder, for attaching directly to brass shell sockets.

### The R Type

The R Extension gives its reflectors the name of "Solid Top." This extension contains a porcelain socket which is held in place by a lock nut at the top of the extension. The socket is designed to fit a half-inch conduit. Besides providing for easy wiring, all R Type reflectors are weather-proof.



To Hang a D Reflector on a Socket, Loosen the Screw, Snap the Socket Into the Ring, and Tighten the Screw



This Illustrates How the Cover of the Holder is Raised on the Pipe in Order to Wire the Holder, and Clamp it to the B Heel

## FINISHES ON IVANHOE REFLECTORS

Ivanhoe reflectors are made of open-hearth drawn steel with three standard finishes: porcelain enamel, aluminum, and paint enamel.

It has been found that in most classes of manufacturing, the porcelain-enameled reflector is most serviceable, as this finish will stand up under dirt, moisture, and acid fumes without any deterioration of the reflecting surface. These reflectors are also easy to clean, which is an important factor to consider. Reflectors finished with aluminum can be used successfully in light manufacturing operations, and in those industries where conditions are generally clean. Paint-enameled reflectors can be classified with the aluminum-finish in this respect.

### Porcelain Enamel:

This finish is applied to the inside of the reflectors in three coats. The first is a binding coat, and it is covered by two coats of white porcelain enamel. The outside of the reflectors is treated with the same binding coat, and covered with one application of dark green porcelain enamel.

### Aluminum:

The aluminum finish is applied in five coats, three to the inside, and two to the outside. The final inside coat is transparent and washable, and the finishing coat on the outside is green paint. The metal form is thoroughly cleaned before the aluminum is applied, and the various coats are baked on separately. The finished reflector is well protected against rust; and although the reflecting surface does not collect dirt readily, it is easily cleaned by washing with a pure soap lather, or with a solution of four parts of warm water to one part ammonia.

### Paint Enamel:

The inside of the reflector is covered with a binding coat, and two coats of glossy white paint enamel. A glossy green paint enamel is applied to the outer surface, and baked on to insure a tough and durable finish. The color is permanent.



To Wire R Type Reflectors, loosen the Lock Nut at the Top of the Extension, and Raise the Reflector on the Pipe

## EXPLANATION OF CATALOG NUMBERS

Reflectors for special service are listed in this book by numbers, as 460, 633, 804; or by an arbitrary combination of two letters and a number, as DA-25, DA-78; or by abbreviation, as RC-100, in which RC stands for Reflecto-Cap, and 100 denotes the wattage of the Mazda C lamp recommended for best results.

Where standard reflectors are listed, however, the catalog numbers are made up of letters and numerals as follows:

1. Type of Extension: B, D, or R.
2. Kind of Finish: A (for aluminum), E (for porcelain enamel), P (for paint enamel).
3. Distribution of Light: B (for bowl distribution), D (for distributing distribution), DD (for deep distributing distribution), F (for focusing distribution), L (for angle distribution), W (for wide distribution).
4. The size of Mazda lamp recommended for best results is indicated by the numerals.



SCHEDULE R

# REFLECTO-CAP DIFFUSER

For 75, 100, 150, 200 and 300-watt Mazda C Lamps



Characteristic Distribution

that the space between them does not exceed one and one-half times their height above the work. Caps that have been in service for a long time may be re-finished at 30 cents list each.

The Ivanhoe Reflecto-Cap Diffuser provides glareless illumination. It consists of three parts: a green porcelain-enameled set-screw holder containing the socket, a porcelain-enameled reflector, green on the outside and white inside, and a silvered cap, highly polished inside, which fits snugly over the bottom of the Mazda C lamp. The units should be so installed



	Ivanhoe No.	Description	Dimensions in Inches		Packing		List Price Each
			Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
For 75-watt MAZDA C Lamps	<b>RC-75</b>	<b>Complete Unit: Reflector, Enameled Holder, Metal Cap with Spring Wire</b>	17	8 $\frac{3}{4}$	10	50	<b>\$6.60</b>
	885	Enameled Steel Reflector .....	17	5 $\frac{3}{4}$	10	30	3.80
	884	Enameled Holder .....	2 $\frac{1}{4}$ Fitter	3 $\frac{5}{8}$	20	20	1.60
	Cap-75	Lamp Cap with Spring Wire Holder ...	2 $\frac{3}{4}$	1 $\frac{3}{8}$	80	..	1.20
For 100-watt MAZDA C Lamps	<b>RC-100</b>	<b>Complete Unit: Reflector, Enameled Holder, Metal Cap with Spring Wire</b>	17	9 $\frac{1}{4}$	10	55	7.30
	885	Enameled Steel Reflector .....	17	5 $\frac{3}{4}$	10	30	3.80
	894	Enameled Holder .....	2 $\frac{1}{4}$ Fitter	4 $\frac{1}{8}$	20	30	2.20
	Cap-100	Lamp Cap with Spring Wire Holder ...	3 $\frac{1}{8}$	1 $\frac{1}{2}$	80	..	1.30
For 150-watt MAZDA C Lamps	<b>RC-150</b>	<b>Complete Unit: Reflector, Enameled Holder, Metal Cap with Spring Wire</b>	21	9 $\frac{1}{4}$	4	45	9.20
	855	Enameled Steel Reflector .....	21	6 $\frac{3}{8}$	4	35	5.80
	864	Enameled Holder .....	2 $\frac{1}{4}$ Fitter	3 $\frac{1}{2}$	20	30	2.10
	Cap-100	Lamp Cap with Spring Wire Holder ...	3 $\frac{1}{8}$	1 $\frac{1}{2}$	80	..	1.30
For 200-watt MAZDA C Lamps	<b>RC-200</b>	<b>Complete Unit: Reflector, Enameled Holder, Metal Cap with Spring Wire</b>	21	10	4	45	9.35
	855	Enameled Steel Reflector .....	21	6 $\frac{3}{8}$	4	35	5.80
	854	Enameled Holder .....	3 $\frac{1}{4}$ Fitter	4 $\frac{1}{4}$	20	30	2.15
	Cap-200	Lamp Cap with Spring Wire Holder ...	3 $\frac{3}{4}$	1 $\frac{3}{4}$	80	..	1.40
For 300-watt MAZDA C Lamps	<b>RC-300</b>	<b>Complete Unit: Reflector, Enameled Holder, Metal Cap with Spring Wire</b>	21	11 $\frac{7}{8}$	4	50	10.15
	855	Enameled Steel Reflector .....	21	6 $\frac{3}{8}$	4	35	5.80
	706	Enameled Holder .....	3 $\frac{1}{4}$ Fitter	6 $\frac{1}{8}$	20	45	2.60
	Cap-300	Lamp Cap with Spring Wire Holder .	4 $\frac{3}{4}$	2 $\frac{1}{8}$	80	..	1.75



SCHEDULE R

# RLM STANDARD DOME REFLECTORS

For 75, 100, 150 and 200-watt Mazda C Lamps

These reflectors are recommended as the highest standard of the distributing type. They are porcelain enameled, green outside and white inside. For uniform illumination they should be spaced not to exceed one and two-thirds times their height above the work. In ordering, the Ivanhoe number should be given. Dome reflectors for 40, 50 and 60-watt Mazda B lamps are listed on page 24.



Characteristic Distribution

## Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



## Reflectors and Separable Holders



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

Ivanhoe No. Use this number in ordering	R L M Standard Designation	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BEDD-75 (For 75-watt Mazda C Lamps)	Dome-75	12 $\frac{1}{8}$	5 $\frac{1}{2}$	15	40	\$2.00
BEDD-100 (For 100 and 150-watt Mazda C Lamps)	Dome-100	14 $\frac{1}{8}$	6 $\frac{1}{2}$	15	50	2.40
BEDD-200 (For 200-watt Mazda C Lamps)	Dome-200	16 $\frac{3}{8}$	7 $\frac{3}{4}$	10	45	2.76

## Reflectors with Holders Attached

### D Type for Attaching to Brass Shell Sockets



DEDD-75 (For 75-watt Mazda C Lamps)	Dome-75 (For D Type Reflectors)	12 $\frac{1}{8}$	5 $\frac{7}{8}$	15	40	2.12
DEDD-100 (For 100 and 150-watt Mazda C Lamps)	Dome-100 (For D Type Reflectors)	14 $\frac{1}{8}$	6 $\frac{7}{8}$	15	40	2.52
DEDD-200 (For 200-watt Mazda C Lamps)	Dome-200 (For D Type Reflectors)	16 $\frac{3}{8}$	8 $\frac{1}{8}$	10	45	2.88

### R Type with Solid Top Containing Porcelain Socket



REDD-75 (For 75-watt Mazda C Lamps)	Dome-75 (For Solid-top Reflectors)	12 $\frac{1}{8}$	8 $\frac{1}{4}$	5	25	3.50
REDD-100 (For 100 and 150-watt Mazda C Lamps)	Dome-100 (For Solid-top Reflectors)	14 $\frac{1}{8}$	9 $\frac{1}{4}$	5	30	3.80
REDD-200 (For 200-watt Mazda C Lamps)	Dome-200 (For Solid-top Reflectors)	16 $\frac{3}{8}$	10 $\frac{1}{2}$	3	25	4.60



B-Heel Reflector — Holder No. 902



B-Heel Reflector — Holder No. 822



B-Heel Reflector — Holder No. 824



B-Heel Reflector — Holder No. 884



SCHEDULE R

# RLM STANDARD DOME REFLECTORS

For 300, 400, 500, 750 and 1000-watt Mazda C Lamps

These reflectors are recommended as the highest standard of the distributing type. They are porcelain enameled, green outside and white inside. For uniform illumination they should be spaced not to exceed one and two-thirds times their height above the work. In ordering, the Ivanhoe number should be given.

## Reflectors and Separable Holders



No. 622  
Standard Quantity, 15  
List Price Each, \$2.00



No. 672  
Standard Quantity, 10  
List Price Each, \$3.10



No. 705  
Standard Quantity, 20  
List Price Each, \$2.35

Complete information on holders is given on page 25.

Ivanhoe No.	R L M Standard Designation	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Stand-ard Package	Approx. Lbs. Ship'g Weight	
BEDD-500 (For 300, 400 and 500-watt Mazda C Lamps)	Dome-500	18 $\frac{1}{8}$	7 $\frac{3}{4}$	5	25	\$3.84
BEDD-1000 (For 750 and 1000-watt Mazda C Lamps)	Dome-1000	20 $\frac{3}{4}$	10 $\frac{1}{4}$	3	25	5.70



Characteristic Distribution

## Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here. The various combinations of reflector and holder are illustrated at the bottom of the page.



## Reflector with Holder Attached

REDD-500 (For 300, 400 and 500-watt Mazda C Lamps)	Dome-500 (For Solid-top Reflector)	18 $\frac{1}{8}$	12 $\frac{1}{4}$	2	20	5.70
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R Type with Solid Top  
Containing Porcelain Socket



B-Heel Reflector—Holder No. 622



B-Heel Reflector—Holder No. 672



B-Heel Reflector—Holder No. 705



SCHEDULE R

# STANDARD BOWL REFLECTORS

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps



Characteristic Distribution

These bowl reflectors replace the two Ivanhoe lines formerly listed as "Extensive Enamel" and "Intensive Enamel." They are porcelain enameled, green outside and white inside, and their bowl shape furnishes an effective shield against the glare of the lamp. They should be spaced not to exceed one and two-thirds times their height above the working-plane.

## Reflectors and Separable Holders

**Standard B-Heel Type**  
For use with any of the Ivanhoe Holders shown here, or with any Standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.



Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship's Weight	
BEB-60	25, 40, 50, 60	7½	5	50	55	\$1.20
BEB-75	75	8½	6½	40	55	1.44
BEB-100	100, 150	8½	7	30	55	1.50
BEB-200	200	10½	8¾	15	35	2.26

## Reflectors with Holders Attached

**D Type for Attaching to Brass Shell Sockets**



DEB-60	25, 40, 50, 60	7½	5¾	50	55	1.32
DEB-75	75	8½	6½	40	55	1.56
DEB-100	100, 150	8½	7¾	20	40	1.62
DEB-200	200	10½	8¾	10	25	2.38

**R Type with Solid Top Containing Porcelain Socket**



REB-60	25, 40, 50, 60, 75	7½	7¾	20	40	2.70
REB-100	100, 150	8½	9¾	10	35	3.12
REB-200	200	10½	11¾	10	35	3.80



B-heel Reflector—Holder No. 902



B-heel Reflector—Holder No. 822



B-heel Reflector—Holder No. 824



B-heel Reflector—Holder No. 884



SCHEDULE R

## STANDARD BOWL REFLECTORS

For 300, 400, 500, 750 and 1000-watt Mazda C Lamps

These bowl reflectors replace the two Ivanhoe lines formerly listed as "Extensive Enamel" and "Intensive Enamel." They are porcelain enameled, green outside and white inside, and their bowl shape furnishes an effective shield against the glare of the lamp. They should be spaced not to exceed one and two-thirds times their height above the working-plane.



Characteristic Distribution

### Reflectors and Separable Holders



No. 622  
Standard Quantity, 15  
List Price Each, \$2.00



No. 672  
Standard Quantity, 10  
List Price Each, \$3.10



No. 705  
Standard Quantity, 20  
List Price Each, \$2.35

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BEB-500	300, 400, 500	12½	8⅜	10	35	\$3.10
BEB-1000	750, 1000	15¾	11⅞	10	55	4.40

**Standard B-Heel Type**  
For use with any of the Ivanhoe Holders shown here. The various combinations of reflector and holder are illustrated at the bottom of the page.



### Reflector with Holder Attached

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		No. in Standard Package	Approx. Lbs. Ship'g Weight	List Price Each
		Diameter	Depth			
REB-500	300, 400, 500	12½	12⅞	5	30	4.70

**R Type with Solid Top**  
Containing Porcelain Socket



B-Heel Reflector—Holder No. 622



B-Heel Reflector—Holder No. 672



B-Heel Reflector—Holder No. 705





## SCHEDULE R

# PORCELAIN-ENAMELED ANGLE TYPE

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps

These angle reflectors should be used in industrial plants where overhead lighting is impractical, requiring the outlets to be placed along the wall. The weatherproof, easy-wiring R type is especially adapted to billboard lighting.



Characteristic Distribution

## Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



D Type for Attaching to Brass Shell Sockets



R Type with Solid Top Containing Porcelain Socket



## Reflectors and Separable Holders



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BEL-40	25, 40, 50	6 $\frac{3}{4}$	5 $\frac{1}{2}$	50	40	\$1.40
BEL-60	60	8 $\frac{1}{4}$	6 $\frac{3}{4}$	30	35	1.64
BEL-100	75, 100, 150, 200	10 $\frac{1}{2}$	9	20	40	2.40

## Reflectors with Holders Attached

DEL-40	25, 40, 50	6 $\frac{3}{4}$	5 $\frac{7}{8}$	50	40	1.52
DEL-60	60	8 $\frac{1}{4}$	7 $\frac{1}{8}$	30	35	1.76
DEL-100	75, 100, 150, 200	10 $\frac{1}{2}$	9 $\frac{3}{4}$	20	40	2.52
REL-60	25, 40, 50, 60	8 $\frac{1}{4}$	9 $\frac{1}{2}$	20	40	3.20
REL-100	75, 100, 150, 200	10 $\frac{1}{2}$	11 $\frac{3}{4}$	10	40	4.20



B-Heel Reflector—Holder No. 902



B-Heel Reflector—Holder No. 822



B-Heel Reflector—Holder No. 824



B-Heel Reflector—Holder No. 884



SCHEDULE R

# PORCELAIN-ENAMELED ANGLE TYPE

For 300, 400, 500, 750 and 1000-watt Mazda C Lamps

These angle reflectors should be used in industrial plants where overhead lighting is impractical, requiring the outlets to be placed along the wall. The weatherproof, easy-wiring R type is especially adapted to billboard lighting.

## Reflectors and Separable Holders



No. 622  
Standard Quantity, 15  
List Price Each, \$2.00



No. 672  
Standard Quantity, 10  
List Price Each, \$3.10



No. 705  
Standard Quantity, 20  
List Price Each, \$2.35

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BEL-500	300, 400, 500	12½	11½	5	30	\$4.40
BEL-1000	750, 1000	15¾	15¾	5	50	6.50

## Reflector with Holder Attached

Ivanhoe No.	Recommended Mazda Lamp Watts	Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	List Price Each
REL-500	300, 400, 500	12½	16	5	30	6.20



Characteristic Distribution

### Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here. The various combinations of reflector and holder are illustrated at the bottom of the page.



### R Type with Solid Top Containing Porcelain Socket



B-Heel Reflector—Holder No. 622



B-Heel Reflector—Holder No. 672



B-Heel Reflector—Holder No. 705





## SCHEDULE R



Characteristic Distribution

## PORCELAIN-ENAMELED WIDE TYPE FOR OUTDOOR LIGHTING

For Mazda C Lamps from 75 to 500 Watts, Inclusive

These reflectors are porcelain enameled, green outside and white inside. They are weatherproof, and the solid-top extension provides for easy wiring. For yard lighting they are usually spaced from two and one-half to five times their mounting-height. They should not be used indoor.

R Type with Solid Top  
Containing Medium Porcelain  
Socket



Ivanhoe No.	Recom'ended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Stand- ard Package	Approx. Lbs. Ship'g Weight	
REW-75	75	14	5 $\frac{3}{8}$	10	35	\$3.45
REW-100	100, 150	16	5 $\frac{3}{4}$	5	25	3.80
REW-200	200	18	6 $\frac{1}{8}$	5	35	4.65

R Type with Solid Top  
Containing Mogul Porcelain  
Socket



REW-500	300,400,500	18	7 $\frac{1}{2}$	3	25	5.50
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SCHEDULE R

# ALUMINUM BOWL REFLECTORS

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps

These aluminum bowl reflectors replace the two Ivanhoe lines formerly listed as "Extensive Aluminum" and "Intensive Aluminum." Their bowl shape serves to protect the eye from the glare of the lamp, and although they are not as serviceable as the porcelain-enameled type shown on pages 12 and 13, they offer good control of light. They should be spaced not to exceed one and two-thirds times their height above the working-plane.



Characteristic Distribution

## Reflectors and Separable Holders



### Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.

No. 902  
Standard Quantity, 50  
List Price Each, \$0.19

No. 822  
Standard Quantity, 50  
List Price Each, \$1.20

No. 824  
Standard Quantity, 30  
List Price Each, \$1.85

No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BAB-60	25, 40, 50, 60	7½	5	50	50	\$0.90
BAB-75	75	8½	6⅛	40	50	1.10
BAB-100	100, 150	8½	7	30	50	1.14
BAB-200	200	10½	8¾	15	30	1.70



## Reflectors with Holders Attached

### D Type for Attaching to Brass Shell Sockets



DAB-60	25, 40, 50, 60	7½	5¼	50	50	1.02
DAB-75	75	8½	6½	40	50	1.22
DAB-100	100, 150	8½	7¼	20	35	1.26
DAB-200	200	10½	8¾	10	20	1.82



B-Heel Reflector—Holder No. 902

B-Heel Reflector—Holder No. 822

B-Heel Reflector—Holder No. 824

B-Heel Reflector—Holder No. 884





## SCHEDULE R

## ALUMINUM FOCUSING REFLECTORS

For 25, 40, 50, 60, 75, 100 and 150-watt Mazda Lamps

Where concentration of light is required, or where working conditions demand that the sockets be hung high, these reflectors should be used. For uniform illumination they should be spaced so that the distance between them does not exceed three-fourths their height above the working-plane.



Characteristic Distribution

## Reflectors and Separable Holders



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

## Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BAF-40	25, 40, 50	6 $\frac{3}{4}$	4 $\frac{3}{8}$	50	40	\$0.62
BAF-60	60	8 $\frac{1}{4}$	5 $\frac{3}{8}$	50	40	.90
BAF-100	75, 100, 150	10 $\frac{1}{2}$	7 $\frac{1}{8}$	20	35	1.40

## Reflectors with Holders Attached

## D Type for Attaching to Brass Shell Sockets



DAF-40	25, 40, 50	6 $\frac{3}{4}$	4 $\frac{3}{4}$	50	40	.74
DAF-60	60	8 $\frac{1}{4}$	5 $\frac{3}{4}$	50	40	1.02
DAF-100	75, 100, 150	10 $\frac{1}{2}$	7 $\frac{5}{8}$	20	35	1.52



B-Heel Reflector—Holder No. 902



B-Heel Reflector—Holder No. 822



B-Heel Reflector—Holder No. 824



B-Heel Reflector—Holder No. 884



SCHEDULE R

## ALUMINUM ANGLE REFLECTORS

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps

These aluminum reflectors furnish illumination for use where the light must be thrown on the work from the side. They are low in price, but are serviceable, and control the light effectively. A more complete line of angle reflectors is made in porcelain enamel, as listed on pages 14 and 15.



Characteristic Distribution

### Standard B-Heel Type

For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BAL-40	25, 40, 50	6 $\frac{3}{4}$	5 $\frac{1}{2}$	50	40	\$0.62
BAL-60	60	8 $\frac{1}{4}$	6 $\frac{3}{4}$	40	40	.90
BAL-100	75, 100, 150, 200	10 $\frac{1}{2}$	9	20	35	1.50

### Reflectors with Holders Attached

#### D Type for Attaching to Brass Shell Sockets



DAL-40	25, 40, 50	6 $\frac{3}{4}$	5 $\frac{7}{8}$	50	40	.74
DAL-60	60	8 $\frac{1}{4}$	7 $\frac{1}{8}$	40	40	1.02
DAL-100	75, 100, 150, 200	10 $\frac{1}{2}$	9 $\frac{3}{8}$	20	35	1.62



B-Heel Reflector—Holder No. 902



B-Heel Reflector—Holder No. 822



B-Heel Reflector—Holder No. 824



B-Heel Reflector—Holder No. 884

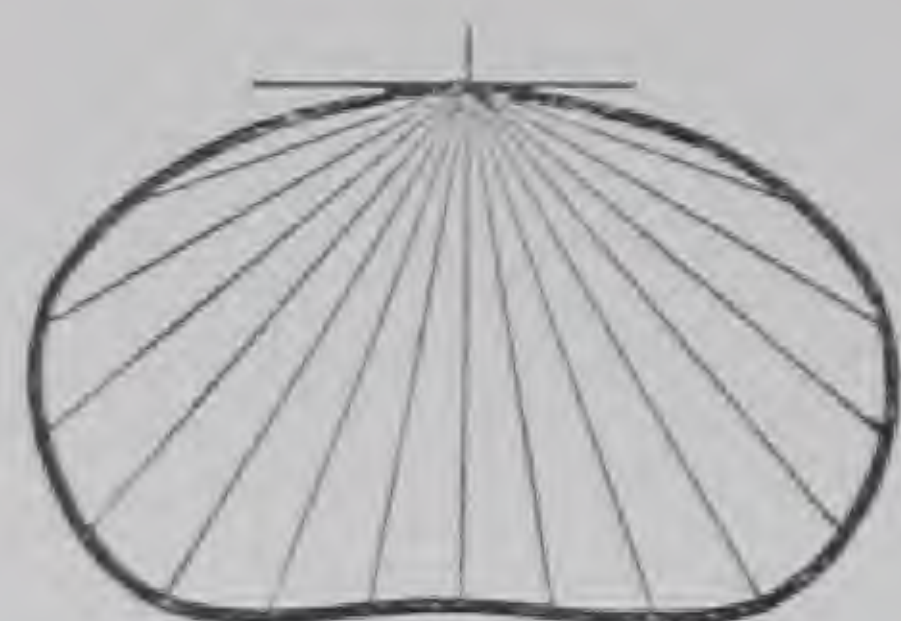


SCHEDULE R

# SHALLOW DOME PAINT-ENAMELED DISTRIBUTING REFLECTORS

For 20, 25, 40, 50, 60, 75, 100 and 150-watt Mazda Lamps

Paint-enameled reflectors, green outside and white inside, are applicable for service with the smaller Mazda lamps where low price is an important consideration. They may be spaced from two to two and one-half times their mounting height for rough work, but for uniform illumination this ratio should not exceed one and two-thirds.



Characteristic Distribution

## Reflectors and Separable Holders

**Standard B-Heel Type**  
For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.



Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BPD-20	20	8	3 1/8	50	50	\$0.72
BPD-40	25, 40, 50	10 1/4	3 7/8	30	50	.80
BPD-60	40, 60	12 1/4	4 1/4	20	40	.94
BPD-75	75	12 1/4	5	20	40	1.02
BPD-100	100, 150	15 1/4	6 1/8	15	55	1.26

## Reflectors with Holders Attached

**D Type for Attaching to Brass Shell Sockets**



DPD-20	20	8	3 1/2	40	40	.84
DPD-40	25, 40, 50	10 1/4	4 1/4	20	40	.92
DPD-60	40, 60	12 1/4	4 5/8	20	35	1.06
DPD-75	75	12 1/4	5 3/8	15	35	1.14
DPD-100	100, 150	15 1/4	6 1/2	10	35	1.38



B-Heel Reflector—Holder No. 902



B-Heel Reflector—Holder No. 822



B-Heel Reflector—Holder No. 824



B-Heel Reflector—Holder No. 884






## SCHEDULE R

## MAZDA C ENCLOSING UNITS

No. 804, No. 806 and No. 808 are weatherproof. They are furnished with porcelain-enamelled reflectors, green outside and white inside, which gives an effective downward distribution of light. The enclosing globes are of Genco, an opal glass which gives excellent diffusion with low absorption.

No. 754, No. 756 and No. 786 are also weatherproof, and provided with Genco globes. The standard finish of the metal parts is green porcelain enamel, but white porcelain enamel is furnished where "W" (for white) is included as part of the catalog number.

No. 727, No. 728 and No. 782 are made of steel with a dark brown paint finish, and are furnished with globes of Genco glass. They are most appropriate for inside use, although they are sometimes used outdoors.

Porcelain-Enamelled Weatherproof Units	Ivanhoe No.	Description	Recommended Mazda C Lamp Watts	Dimensions in Inches			Packing		List Price Each
				Lgth. Over All	Max. Diam.	Size of Fitter	No. in. Stand. Quat'y	Appro. Lbs. Ship'g Wght.	
	804	Fixture and Glass	100, 150, 200	11 $\frac{3}{4}$	12	6	12	110	\$5.34
	805	Fixture only .....		5 $\frac{7}{8}$	12	6	12	60	4.14
	775	Glass only .....		8	8	6	12	50	1.20
	806	Fixture and Glass	300, 400, 500	13 $\frac{3}{4}$	15	6	12	190	6.48
	807	Fixture only .....		9 $\frac{1}{4}$	15	6	12	140	5.28
	775	Glass only .....		8	8	6	12	50	1.20
	808	Fixture and Glass	750, 1000	15 $\frac{1}{8}$	15	8	12	225	7.64
	809	Fixture only .....		8 $\frac{7}{8}$	15	8	12	140	4.64
	774	Glass only .....		12	12	8	12	85	3.00
	754	Fixture and Glass	100, 150, 200	12 $\frac{1}{2}$	8	6	12	80	3.60
	755	Fixture only .....		4 $\frac{1}{2}$	6	6	12	30	2.40
	775	Glass only .....		8	8	6	12	50	1.20
	754W	Fixture and Glass	100, 150, 200	12 $\frac{1}{2}$	8	6	12	80	3.82
	755W	Fixture only .....		4 $\frac{1}{2}$	6	6	12	30	2.62
	775	Glass only .....		8	8	6	12	50	1.20
	756	Fixture and Glass	300, 400, 500	14 $\frac{1}{2}$	8	6	12	90	3.96
	757	Fixture only .....		6 $\frac{1}{2}$	6	6	12	40	2.76
	775	Glass only .....		8	8	6	12	50	1.20
	756W	Fixture and Glass	300, 400, 500	14 $\frac{1}{2}$	8	6	12	90	4.24
	757W	Fixture only .....		6 $\frac{1}{2}$	6	6	12	40	3.04
	775	Glass only .....		8	8	6	12	50	1.20
	786	Fixture and Glass	750, 1000	19	12	8	12	130	5.96
	759	Fixture only .....		7	8	8	12	45	2.96
	774	Glass only .....		12	12	8	12	85	3.00
	786W	Fixture and Glass	750, 1000	19	12	8	12	130	6.30
	759W	Fixture only .....		7	8	8	12	45	3.30
	774	Glass only .....		12	12	8	12	85	3.00
Paint-Finish Enclosing Units	727	Fixture and Glass	100, 150, 200	12 $\frac{1}{2}$	8	6	12	80	3.40
	741	Fixture only .....		4 $\frac{1}{2}$	6	6	12	30	2.20
	775	Glass only .....		8	8	6	12	50	1.20
	728	Fixture and Glass	300, 400, 500	14 $\frac{1}{2}$	8	6	12	90	3.60
	729	Fixture only .....		6 $\frac{1}{2}$	6	6	12	40	2.40
	775	Glass only .....		8	8	6	12	50	1.20
	782	Fixture and Glass	750, 1000	19	12	8	12	130	5.80
	753	Fixture only .....		7	8	8	12	45	2.80
	774	Glass only .....		12	12	8	12	85	3.00





## SCHEDULE R

## REFLECTORS FOR SPECIAL SERVICE



No. 751 is a porcelain-enameled angle reflector, green outside and white inside, designed for lighting tennis courts and motion-picture studios. It should be used with one of the Ivanhoe holders shown here. Detailed recommendations for tennis court lighting may be had on request.



No. 622  
Standard Quantity, 15  
List Price Each, \$2.00



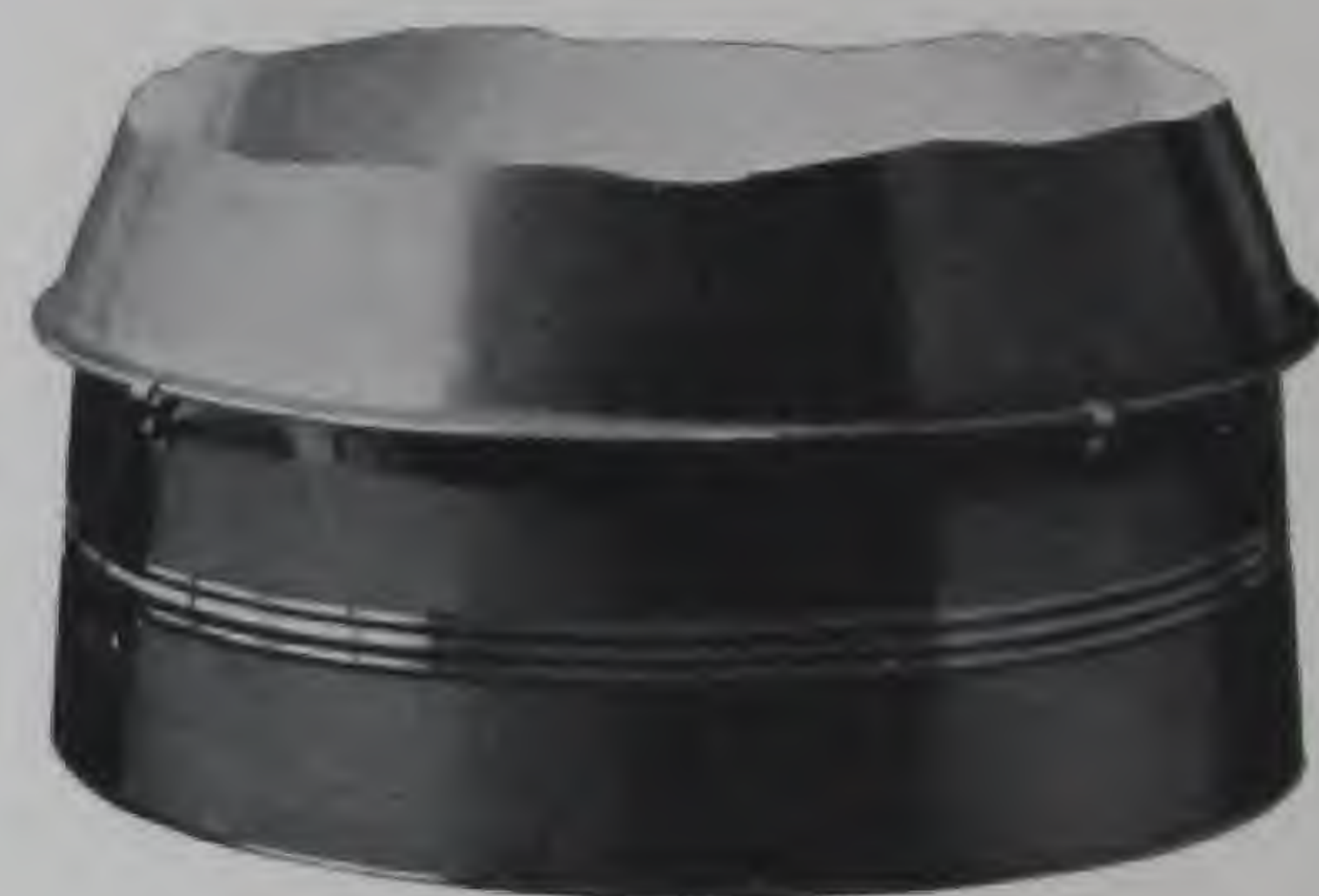
No. 672  
Standard Quantity, 10  
List Price Each, \$3.10



No. 705  
Standard Quantity, 20  
List Price Each, \$2.35

Complete information on holders is given on page 25.

No. 795 is a cylindrical skirt, which clamps to the bead at the bottom of Reflector No. BEB-1000 (page 13) when this reflector is used for tennis court lighting. It is finished in black paint, inside and outside, and its purpose is to eliminate glare.



No. 633 has been standardized by the U. S. Post Office Department for mail-case lighting. It is porcelain enameled, green outside and white inside, and is furnished with a D holder for attaching to brass-shell sockets.



No. 460 is an aluminum-lined reflector, provided with a D holder. It is especially appropriate for lighting desks from drop cords.



Nos. DA-58 and DA-78 are aluminum-lined reflectors which give a downward distribution of light. They are appropriate for local lighting over machine tools and work benches.



No. 634 is used on Anderson Self-Adjusting Arms for sewing-machine lighting, and is applicable for other kinds of service requiring a small reflector. It is finished in aluminum, and provided with a D holder.



No. DA-55 is an aluminum-finish shade which adapts itself readily to use with Anderson Self-Adjusting Arms for local lighting. The same shape, made of steel with brushed brass finish, is listed as DA-55 BB.



No. DA-25 is a pear-shaped "half shade" which comes in handy for concentrating the light on a small area, and shielding the lamp from the eyes. It is finished in aluminum. The same shape, made of brass with brushed brass finish, is listed as DA-25 BB.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approximate Lbs. Shipping Weight	
DA-25	20, 25, 40, 50	6	2½	90	25	\$0.48
DA-25 BB	20, 25, 40, 50	6	2½	90	25	1.00
DA-55	25, 40, 50, 60	6¾	3¼	60	30	.75
DA-55 BB	25, 40, 50, 60	6¾	3¼	60	30	1.46
DA-58	20, 25, 40, 50	6¾	3½	60	35	.60
DA-78	25, 40, 50, 60	8¼	4½	40	40	.78
460	25, 40, 50	8½	5	40	40	1.42
633	15, 20, 25	8¼	6¼	40	40	1.34
634	10, 15, 20	3¾	4	50	25	.60
751	300, 400, 500	15¾	14¾	5	35	4.50
795	750, 1000	14½	5¼	4	15	2.20



SCHEDULE R

# PORCELAIN-ENAMELED VAPOR-PROOF UNITS

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps

These reflectors are recommended for use in places where the lamp base and socket must be protected from acid fumes or moisture. For uniform illumination they should be spaced one and two-thirds times the mounting-height.

Ivanhoe Vapor-Proof Unit No. 880 is supplied with a black cast-iron holder, a porcelain-enameled reflector, green outside and white inside, and a globe of strong crystal glass. The unit is very convenient to assemble or take apart, as the globe threads into the holder, and the reflector attaches to the bottom of the holder with three screws.

The other reflectors listed here fit various condulets supplied by the Crouse-Hinds Co. They are porcelain enameled, green outside and white inside, and the complete unit in each case is vapor proof.

Ivanhoe Vapor-Proof Unit



Ivanhoe No.	Description	Recommended Mazda C Lamp Watts	Dimensions in Inches		Packing		List Price Each
			Length Over All	Max. Diam.	No. in Hand. Quantity	Approx. Ship'g Weight Pounds	
880	Top Casting Reflector and Globe	100, 150, 200	12 $\frac{1}{8}$	15	10	175	\$7.00
875	Top Casting		4 $\frac{1}{2}$	7	10	50	4.08
876	Reflector		5 $\frac{3}{8}$	15	10	50	2.40
877	Globe		8 $\frac{1}{2}$	4 $\frac{1}{4}$	10	75	.52

Guard at extra cost supplied on request

Reflectors for Crouse-Hinds Condulets



VED-60	For VN Condulets	60, 75	4	12 $\frac{1}{4}$	20	45	2.00
VEDD-100	For VO Condulets	100, 150	6 $\frac{1}{4}$	14 $\frac{1}{8}$	15	60	2.80
VEDD-200		200	7 $\frac{5}{8}$	16 $\frac{3}{8}$	10	40	3.35

For VN Condulets use Crouse-Hinds reflector holder No. VN61 or VN610  
For VN Condulets use Crouse-Hinds guard No. VN95 for 6" globe, and VN97 for 7" globe  
For VO Condulets use Crouse-Hinds reflector holder No. VO61 or VO610  
For VO Condulets use Crouse-Hinds guard No. VO95 or VO950



627	For V Condulets	25, 40, 50, 60	4 $\frac{7}{8}$	15 $\frac{1}{4}$	15	55	2.85
629	For VH Condulets	75, 100, 150	6 $\frac{1}{2}$	18 $\frac{1}{4}$	10	50	4.50

For V Condulets use Crouse-Hinds reflector holder No. V61 or V 610  
For V Condulets use Crouse-Hinds guard No. V71 or V 710  
For VH Condulets use Crouse-Hinds reflector holder No. VH61 or VH610  
For VH Condulets use Crou e-Hinds guard No. VH71 or VH710



SCHEDULE R

# SHALLOW DOME PORCELAIN-ENAMELED DISTRIBUTING REFLECTORS

For 25, 40, 50, 60, 75, 100, 150 and 200-watt Mazda Lamps

Where requirements are not exacting, as in storerooms and warehouses, these reflectors may be spaced from two to two and one-half times their height above the work. The R L M standard line, listed on page 10, is recommended for use with Mazda C lamps where uniform illumination is desired.



Characteristic Distribution

## Reflectors and Separable Holders

**Standard B-Heel Type**  
For use with any of the Ivanhoe Holders shown here, or with any standard Form O Holder. The various combinations of reflector and holder are illustrated at the bottom of the page.



No. 902  
Standard Quantity, 50  
List Price Each, \$0.19



No. 822  
Standard Quantity, 50  
List Price Each, \$1.20



No. 824  
Standard Quantity, 30  
List Price Each, \$1.85



No. 884  
Standard Quantity, 20  
List Price Each, \$1.60

Complete information on holders is given on page 25.

Ivanhoe No.	Recommended Mazda Lamp Watts	Dimensions in Inches		Packing		List Price Each
		Diameter	Depth	No. in Standard Package	Approx. Lbs. Ship'g Weight	
BED-40	25, 40, 50	10 $\frac{1}{4}$	3 $\frac{7}{8}$	30	55	\$1.26
BED-60	40, 60	12 $\frac{1}{4}$	4 $\frac{1}{4}$	20	45	1.46
BED-75	75	12 $\frac{1}{4}$	5	20	45	1.68
BED-100	100, 150, 200	15 $\frac{1}{4}$	6 $\frac{1}{8}$	15	60	2.48

## Reflectors with Holders Attached

**D Type for Attaching to Brass Shell Sockets**



DED-40	25, 40, 50	10 $\frac{1}{4}$	4 $\frac{1}{4}$	30	55	1.38
DED-60	40, 60	12 $\frac{1}{4}$	4 $\frac{5}{8}$	20	45	1.58
DED-75	75	12 $\frac{1}{4}$	5 $\frac{3}{8}$	20	45	1.80
DED-100	100, 150, 200	15 $\frac{1}{4}$	6 $\frac{1}{2}$	15	60	2.60

**R Type with Solid Top Containing Porcelain Socket**



RED-60	40, 50, 60	12 $\frac{1}{4}$	7	5	20	3.36
RED-100	100, 150, 200	15 $\frac{1}{4}$	8 $\frac{7}{8}$	5	25	3.90



B-Heel Reflector—Holder No. 902



B-Heel Reflector—Holder No. 822



B-Heel Reflector—Holder No. 824



B-Heel Reflector—Holder No. 884



SCHEDULE R

## HOLDERS FOR B-HEEL REFLECTORS

These holders offer a solid, workmanlike method of suspending B-heel reflectors. They are convenient to wire and install, as they can be put into place whenever convenient, independent of the reflectors.

### For Medium-Base Lamps and Reflectors with 2¼-inch Fitters



No. 902

**No. 902** is a steel holder finished in green paint. The top band of the holder attaches to the shade-holder groove of a porcelain or composition socket, and the bottom band fits around the B heel of the reflector.



No. 822

This is a porcelain socket holder, tapped at the top for a half-inch conduit. It attaches to the B heel by means of three clamps which are locked into place by a ring.



No. 824

**No. 824** is the same in design as No. 822, but provided with a green weather-proof porcelain-enameled canopy. The socket is wired by releasing the lock nut, and raising the canopy on the conduit or drop cord.



No. 884

This set-screw holder is tapped at the top for a half-inch conduit. It is finished in green porcelain-enameled, and contains a porcelain socket. Three set screws attach the holder to the B heel, and each screw is provided with a tension spring wire to prevent its being loosened by vibration.

### For Mogul-Base Lamps and Reflectors with 3¼-inch Fitters



No. 622

This is a porcelain socket holder, tapped at the top for a half-inch conduit. It attaches to the B heel by means of three clamps, which are locked into place by a ring.



No. 672

**No. 672** is the same in design as No. 622, but provided with a green weather-proof porcelain-enameled canopy. The socket is wired by releasing the lock nut, and raising the canopy on the conduit.



No. 705

This is a green porcelain-enameled set-screw holder containing a porcelain socket. It is tapped at the top for a half-inch conduit, and attaches to the B heel by two lugs and a set screw. The screw is provided with a tension spring wire to prevent its being loosened by vibration.



No. 900

For Obround Condulettos

### For Crouse-Hinds Condulettos

These holders are simple and practical devices for attaching 2¼-inch B-heel reflectors to condulettos. They are painted green to match the reflectors.



No. 903

For Elliptical Condulettos

Ivanhoe No.	Dimensions		Packing		List Price Each
	Diameter	Length	Number in Standard Package	Approximate Lbs. Shipping Weight	
622	3¼" Fitter	5¾"	15	40	\$2.00
672	3¼" Fitter	6¼"	10	40	3.10
705	3¼" Fitter	5⅝"	20	45	2.35
822	2¼" Fitter	2⅞"	50	45	1.20
824	2¼" Fitter	3¼"	30	35	1.85
884	2¼" Fitter	3⅝"	20	20	1.60
900	2¼" Fitter	1⅞"	50	—	.32
902	2¼" Fitter	⅞"	50	—	.19
903	2¼" Fitter	1⅞"	50	—	.30



SCHEDULE R

# BRACKETS AND SUSPENSION

These may be used on any of the Mazda C enclosing units listed on page 21.



No. 0662  
No. 0663

No. 0662  
Length, 24 inches; diameter of pipe, 1/2 inch; standard quantity, 20; approximate shipping weight, 80 lbs. List price each, \$1.62.

No. 0663  
Length, 36 inches; diameter of pipe, 1/2 inch; standard quantity, 20; approximate shipping weight, 105 lbs. List price each, \$1.86.



No. 0658

No. 0658  
Length, 3 3/4 inches; diameter of pipe, 1/2 inch; standard quantity, 15; approximate shipping weight, 15 lbs. List price each, \$1.16.



No. 0659  
No. 0660

No. 0659  
Length, 24 inches; diameter of pipe, 1/2 inch; standard quantity, 20; approximate shipping weight, 90 lbs. List price each, \$1.62.

No. 0660  
Length, 36 inches; diameter of pipe, 1/2 inch; standard quantity, 20; approximate shipping weight, 110 lbs. List price each, \$1.86.

## IVANHOE-REGENT OPAL LAMP CAPS



Opal Lamp Cap Attached to Mazda C Lamp with Spring Wire Holder



Opal Lamp Cap Used with Shallow-Dome Reflector



Opal Lamp Cap Used with Glass Reflector

The Ivanhoe-Regent Opal Lamp Cap is made of Genco glass, which combines splendid diffusion with low absorption. This cap improves the illumination by hiding the filament and cutting down glare. It is designed particularly for use with reflectors, both glass and steel, which do not give sufficient eye protection.



The Prices Listed Include Cap and Spring as Illustrated Here

Ivanhoe-Regent No.	For Use with Mazda C Lamps	Standard Quantity	List Price Each
GC-75	75	4 Dozen	\$0.85
GC-100	100, 150	4 Dozen	.91
GC-200	200	4 Dozen	.96
GC-300	300	3 Dozen	1.12
GC-500	400, 500	3 Dozen	1.32





# ANDERSON

## SELF-ADJUSTING ARMS

IVANHOE-REGENT WORKS  
of General Electric Company  
CLEVELAND, OHIO



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CCA



# THE ANDERSON SELF-ADJUSTING ARM

## (Patented)



### What It Is

The Anderson Self-Adjusting Arm is a fixture for local lighting. The most complete types have elbow, wrist, shoulder and telescope action. With the Anderson arm you can move the light in a direct line from wherever it is to wherever you want it, and it stays there.

### Where It Should Be Used

The Anderson Self-Adjusting Arm is adaptable to local lighting for many kinds of work. Its greatest field is the machine shop and factory, where it is used on lathes and work-benches, and anywhere else that it is found necessary to concentrate the light for exacting work. Special numbers are made for sewing-machines, linotype machines, garages and photographic studios, and the arms have also been very popular in the offices of physicians, oculists and surgeons. The base castings are made in various designs for suspending the arm from the ceiling or wall, attaching it to a table, work-bench or floor, or clamping it to a bed for use in hospitals, hotels or homes. Wherever the movable feature in local lighting is important, the Anderson line offers a fixture to fill the requirement.

### How It Works

The secret of the convenience and dependability of the arm lies in the construction of the two discs which form each joint. These discs are made of cast iron, with the center hollowed out so that one disc comes into contact with the other only at the extreme outer edge. The two discs are held together by a screw which passes through one disc and screws through the opposing disc, where it is locked by a nut. The result of this construction is a joint with a resilient tension which permits free







motion, yet remains constant for years without readjustment. The discs are strong, and the weight of every part of the arm is carefully calculated to produce a well-balanced, durable fixture.

### Adjustment

The proper tension is put on the discs before they leave the factory, and ordinarily no adjustment is required for a long time. If it becomes necessary to change the tension, however, this may be done by using two wrenches. First loosen the lock nut; then adjust the screw until the desired tension is reached; then tighten the nut. When the disc moves under the head of the screw it is evidence that the nut has locked the screw firmly and will maintain the tension.

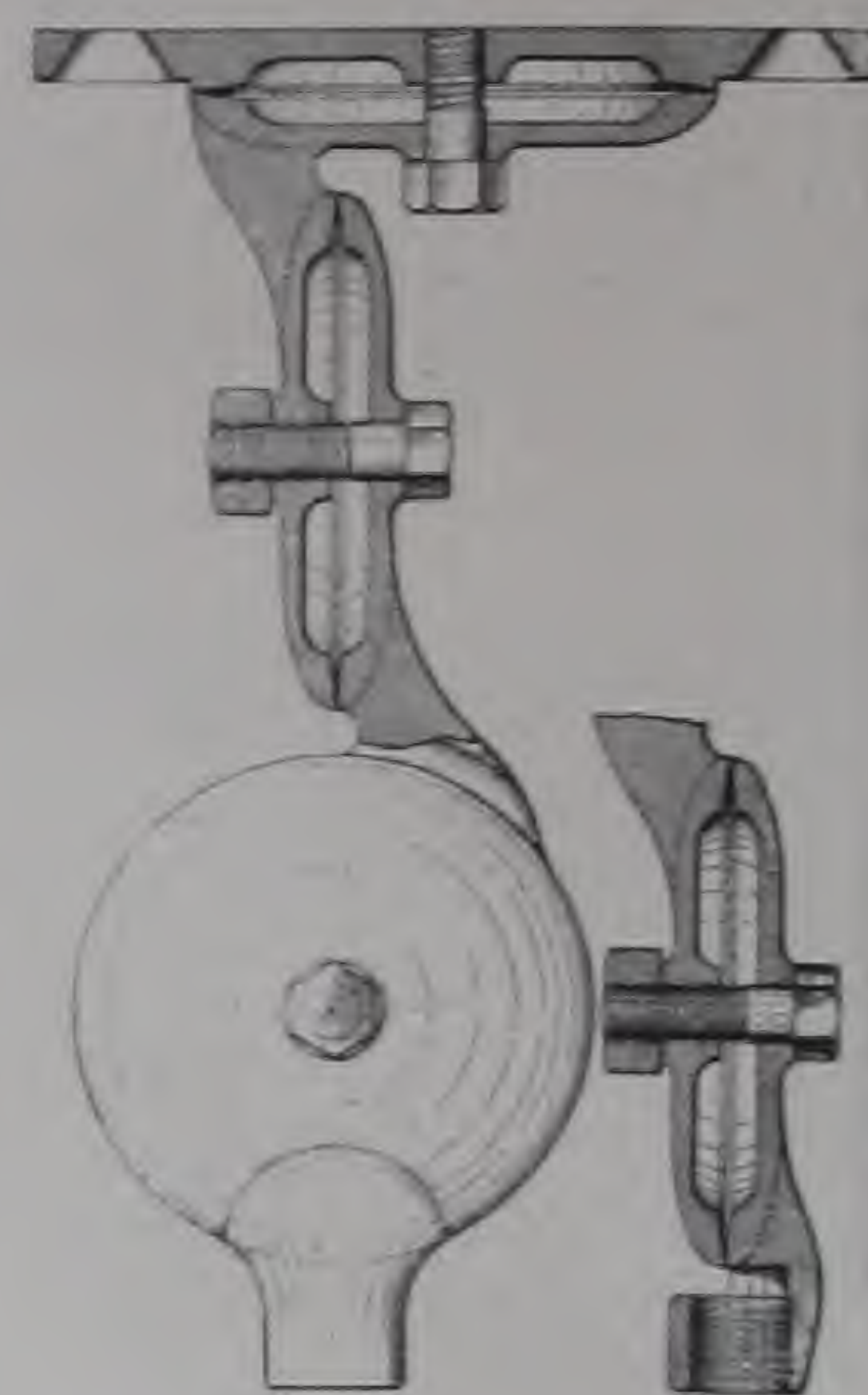


Diagram of the Universal Friction Disc Joint of the Anderson Self-Adjusting Arm

## DIMENSIONS OF DISC JOINTS, RODS AND TUBING

Joints Are Not Included in the Lengths of Rods and Tubing

### No. 1 Disc Joint

This size of main joint is used on all types of arms, 2½ feet long and under, which extend to 4 feet 9 inches or less.

Diameter of discs, 1⅞ inches.

Size of tube, ⅛-inch standard pipe size ( $\frac{7}{16}$ -inch outside diameter).

Size of telescoping extension rod,  $\frac{7}{32}$ -inch round steel.

Size of screws and nuts,  $\frac{5}{16}$ -inch standard.



### No. 2 Disc Joint

This size of main joint is used on all types of arms which are from 3 to 5 feet long, inclusive, and which extend from 5½ to 9½ feet, inclusive.

Diameter of discs, 2⅜ inches.

Size of tube, ¼-inch standard pipe size ( $\frac{9}{16}$ -inch outside diameter).

Size of telescoping extension rod, ¼-inch round steel.

Size of screws and nuts, ⅜-inch standard.







### No. 3 Disc Joint

This size of main joint is used on all types of arms which are from 6 to 7 feet long, inclusive, and which extend from 11½ to 13½ feet, inclusive.

Diameter of discs, 3 inches.

Size of tube, ¾-inch standard pipe size ( $\frac{11}{16}$ -inch outside diameter).

Size of telescoping extension rod,  $\frac{5}{16}$ -inch round steel.

Size of screws and nuts,  $\frac{7}{16}$ -inch standard.



### No. 4 Disc Joint

This size of main joint is used on all types of arms which are 8 feet long or over, and which extend to 15½ feet or more.

Diameter of discs, 3½ inches.

Size of tube, ¾-inch standard pipe size ( $\frac{11}{16}$ -inch outside diameter).

Size of telescoping extension rod,  $\frac{5}{16}$ -inch round steel.

Size of screws and nuts,  $\frac{7}{16}$ -inch standard.



### No. 0 Disc Joint

For Outside Wiring

This wrist joint, usually placed next to the socket, gives a universal action at that point.  
Diameter of discs, 1¼ inches.



### No. 0I Disc Joint

For Inside Wiring

This wrist joint, usually placed next to the socket, gives a universal action at that point.  
Diameter of discs, 1¼ inches.

### No. 00I Disc Joint

For Inside Wiring

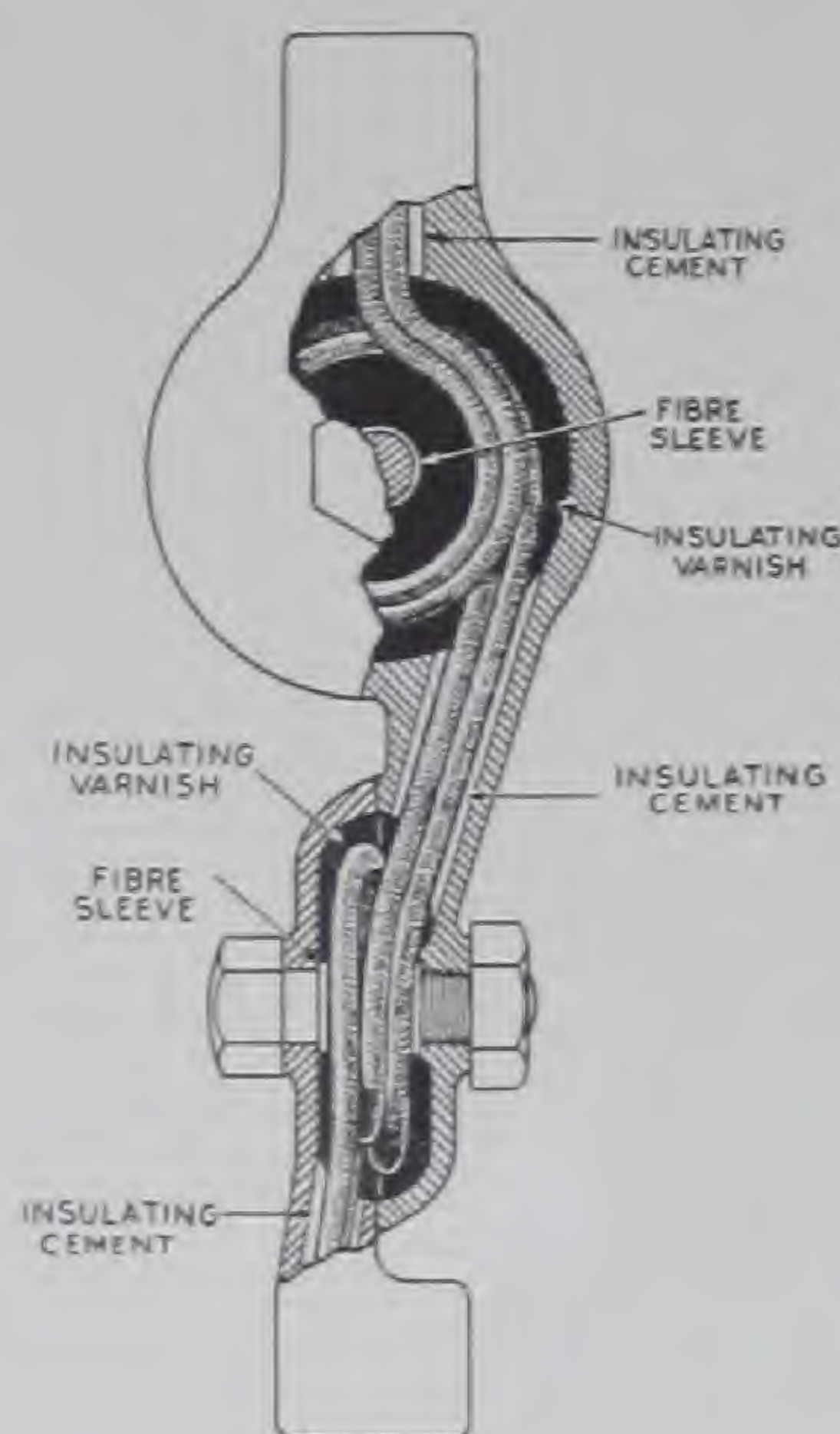
This wrist joint, usually placed next to the socket, gives a universal action at that point.  
Diameter of discs, 1⅛ inches.





## SCHEDULE T

## PATENTED METHOD OF INSIDE WIRING OF DISC JOINTS



Where the wire enters the disc it is fastened in place with insulating cement. It is then coiled once around the fibre sleeve surrounding the screw. In one extreme position the loop of wire is coiled closely around the fibre sleeve, and in the opposite extreme position the loop of wire is expanded, but never enough to come in frictional contact with the rim of the disc. Where the wire is carried out through the opposing disc it is again made secure with insulating cement to prevent any possibility of its slipping or chafing endwise. The inner walls of the disc are protected with heavy insulating varnish.

## IVANHOE REFLECTORS FOR ANDERSON SELF-ADJUSTING ARMS

Where reflectors are ordered with Anderson Arms, the type illustrated with the arm will be furnished unless the customer specifies otherwise. To permit a choice of reflectors, any of the seven shown here may be selected as an alternate at the "List Price Each for Arm, Wire, Socket and Reflector." For example, the list price of No. 1A-1 complete (See page 33) is \$7.35, and includes the reflector illustrated with the arm. In case the customer prefers reflector No. 633, for instance, it will be furnished in place of the regular reflector at the same list price of \$7.35.



No. DEB-60  
Porcelain-Enameled Finish  
For 25, 40, 50 and 60-watt Mazda B Lamps



No. 633  
Porcelain-Enameled Finish  
For 15, 20 and 25-watt Mazda B Lamps



No. DAB-60  
Porcelain-Enameled Finish  
For 25, 40, 50 and 60-watt Mazda B Lamps



No. DA-55  
Aluminum Finish  
For 25, 40, 50 and 60-watt Mazda B Lamps



No. 634  
Aluminum Finish  
For 10, 15 and 20-watt Mazda B Lamps



No. DA-25  
Aluminum Finish  
For 20, 25, 40 and 50-watt Mazda B Lamps



No. DA-58  
Aluminum Finish  
For 20, 25, 40 and 50-watt Mazda B Lamps

No. DA-78  
Aluminum Finish  
For 25, 40, 50 and 60-watt Mazda B Lamps



## SCHEDULE T

## TELESCOPING CEILING TYPE

## Style 1A

This is a strong, serviceable arm with a swivel joint at the ceiling, and two other joints, set at right angles, immediately beneath. The reflector may also be moved on a joint at the end of the extension. The coil wire keeps the slack cord out of the way. Prices listed are for dull black finish. Plated finishes are supplied at 60% additional, and a smooth-ground enamel finish in gray, brown or white, at 25% additional. Prices on other enamel colors will be quoted on request.

Catalog No.	Length of Tube	Length of Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
1A-1	½ ft.	1 ft.	\$3.85	\$7.35
1A-2	1 ft.	2 ft.	4.20	7.70
1A-3	1½ ft.	3 ft.	4.50	8.00
1A-4	2 ft.	4 ft.	4.85	8.35
1A-5	2½ ft.	5 ft.	5.20	8.70
1A-6	3 ft.	6 ft.	5.50	9.00
1A-7	4 ft.	8 ft.	5.90	9.75
1A-8	5 ft.	9½ ft.	6.25	10.10
1A-9	6 ft.	11½ ft.	6.95	10.80
1A-10	7 ft.	13½ ft.	7.30	11.15
1A-11	8 ft.	15½ ft.	8.00	12.15
1A-12	9 ft.	17½ ft.	8.65	12.80
1A-13	10 ft.	19½ ft.	9.35	13.50







## SCHEDULE T

## TELESCOPING CEILING TYPES

## STYLE 3A

## Dull Black Finish

For Plated Finishes Add 70%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request



Catalog No.	Length of Tube	Length of Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
3A-1	3 feet	6 feet	\$6.55	\$10.40
3A-2	4 feet	8 feet	6.95	10.80
3A-3	5 feet	9½ feet	7.20	11.05
3A-4	6 feet	11½ feet	7.60	11.45
3A-5	7 feet	13½ feet	8.00	11.85
3A-6	8 feet	15½ feet	8.30	12.15

## STYLE 2A

(With Swivel Base)

## Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

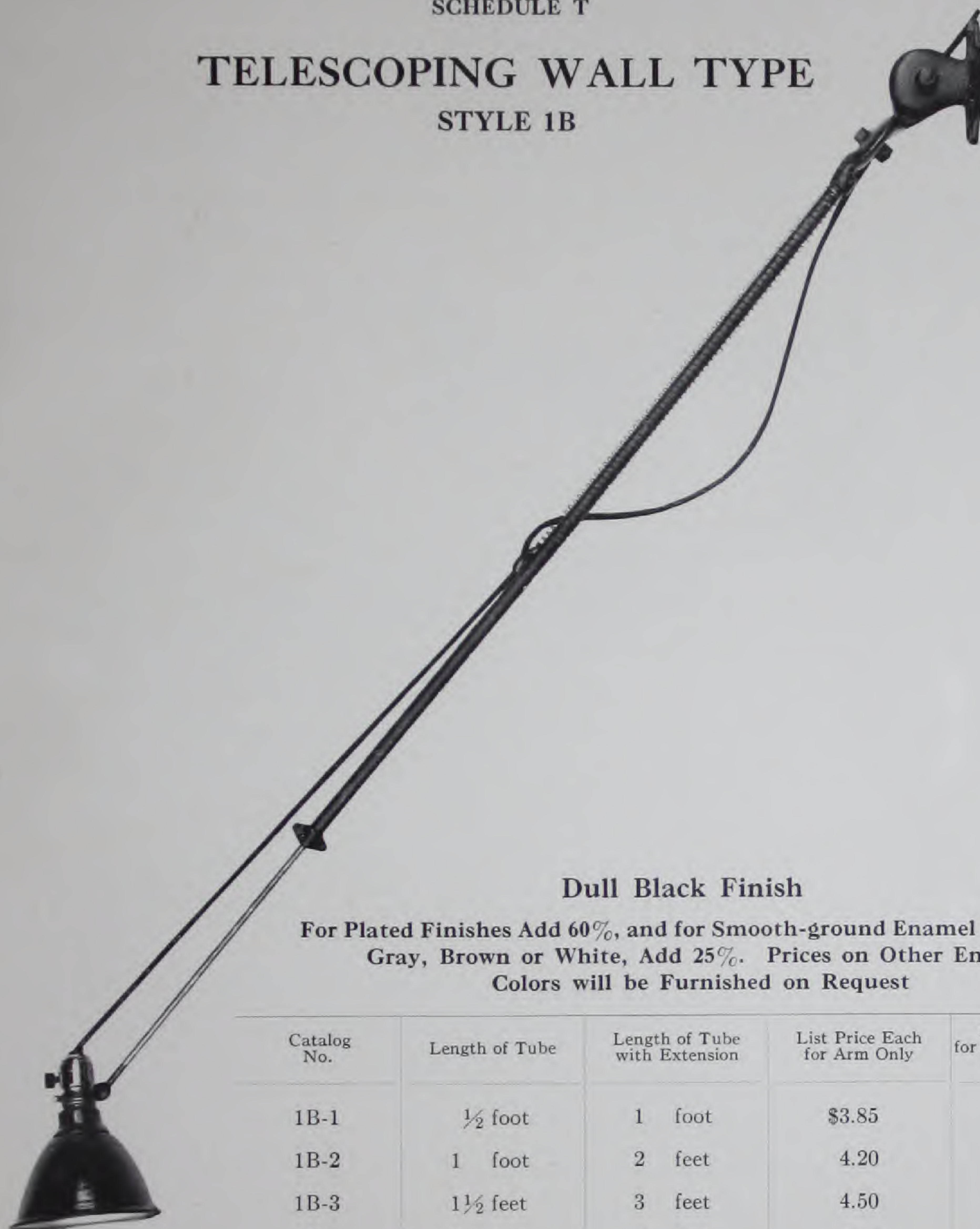
Catalog No.	Length of Main Tube	Length of Secondary Tube	Length of Secondary Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
2A-1	3 feet	12 inches	20 inches	\$5.50	\$9.35
2A-2	3 feet	18 inches	32 inches	5.70	9.55
2A-3	3 feet	24 inches	40 inches	6.00	9.85
2A-4	4 feet	12 inches	20 inches	5.80	9.65
2A-5	4 feet	18 inches	32 inches	6.05	9.90
2A-6	4 feet	24 inches	40 inches	6.25	10.10
2A-7	5 feet	12 inches	20 inches	6.10	9.95
2A-8	5 feet	18 inches	32 inches	6.30	10.15
2A-9	5 feet	24 inches	40 inches	6.50	10.35
2A-10	6 feet	12 inches	20 inches	7.15	11.30
2A-11	6 feet	18 inches	32 inches	7.40	11.55
2A-12	6 feet	24 inches	40 inches	7.65	11.80
2A-13	7 feet	12 inches	20 inches	7.40	11.55
2A-14	7 feet	18 inches	32 inches	7.65	11.80
2A-15	7 feet	24 inches	40 inches	7.95	12.10
2A-16	8 feet	12 inches	20 inches	8.10	12.25
2A-17	8 feet	18 inches	32 inches	8.40	12.55
2A-18	8 feet	24 inches	40 inches	8.65	12.80





SCHEDULE T

TELESCOPING WALL TYPE  
STYLE 1B



Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Tube	Length of Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
1B-1	1/2 foot	1 foot	\$3.85	\$7.35
1B-2	1 foot	2 feet	4.20	7.70
1B-3	1 1/2 feet	3 feet	4.50	8.00
1B-4	2 feet	4 feet	4.85	8.35
1B-5	2 1/2 feet	5 feet	5.20	8.70
1B-6	3 feet	6 feet	5.50	9.00
1B-7	4 feet	8 feet	5.90	9.75
1B-8	5 feet	9 1/2 feet	6.25	10.10
1B-9	6 feet	11 1/2 feet	6.95	10.80
1B-10	7 feet	13 1/2 feet	7.30	11.15
1B-11	8 feet	15 1/2 feet	8.00	12.15
1B-12	9 feet	17 1/2 feet	8.65	12.80
1B-13	10 feet	19 1/2 feet	9.35	13.50





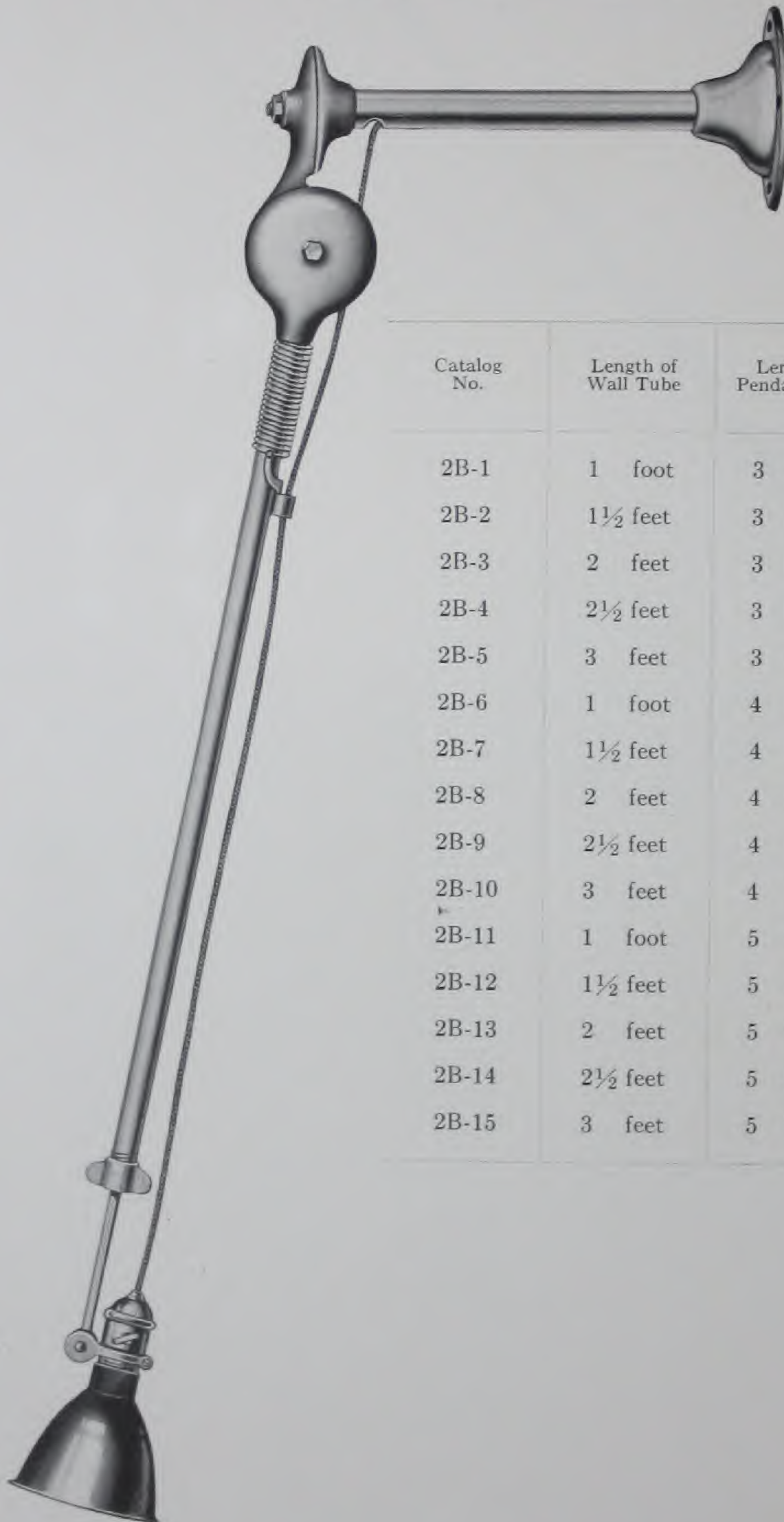
## SCHEDULE T

## TELESCOPING WALL TYPE

## STYLE 2B

## Dull Black Finish

For Plated Finishes Add 80%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%.  
Prices on Other Enamel Colors will be Furnished on Request



Catalog No.	Length of Wall Tube	Length of Pendant Tube	Length of Pendant Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
2B-1	1 foot	3 feet	5½ feet	\$8.00	\$12.15
2B-2	1½ feet	3 feet	5½ feet	8.30	12.45
2B-3	2 feet	3 feet	5½ feet	8.65	12.80
2B-4	2½ feet	3 feet	5½ feet	9.00	13.15
2B-5	3 feet	3 feet	5½ feet	9.35	13.50
2B-6	1 foot	4 feet	7½ feet	8.30	12.85
2B-7	1½ feet	4 feet	7½ feet	8.65	13.20
2B-8	2 feet	4 feet	7½ feet	9.00	13.55
2B-9	2½ feet	4 feet	7½ feet	9.35	13.90
2B-10	3 feet	4 feet	7½ feet	9.70	14.25
2B-11	1 foot	5 feet	9½ feet	8.65	13.55
2B-12	1½ feet	5 feet	9½ feet	9.00	13.90
2B-13	2 feet	5 feet	9½ feet	9.35	14.25
2B-14	2½ feet	5 feet	9½ feet	9.70	14.60
2B-15	3 feet	5 feet	9½ feet	10.00	14.90



SCHEDULE T

WALL TYPES



STYLE 3B

Dull Black Finish

For Plated Finishes Add 70%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for outside wiring.

This type is used extensively by dentists, oculists and physicians.

Catalog No.	Length Over All Except Socket and Reflector	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
3B-1	2 feet	\$7.60	\$11.10
3B-2	2½ feet	7.75	11.25
3B-3	3 feet	7.95	11.45
3B-4	3½ feet	8.05	11.90
3B-5	4 feet	8.20	12.05
3B-6	5 feet	8.30	12.15



STYLE 4B

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for outside wiring.

Catalog No.	Length of Tube	Length of Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
4B-1	½ foot	10 inches	\$4.90	\$8.75
4B-2	1 foot	22 inches	5.20	9.05
4B-3	1½ feet	34 inches	5.50	9.35
4B-4	2 feet	46 inches	5.90	9.75
4B-5	2½ feet	58 inches	6.25	10.10
4B-6	3 feet	70 inches	6.55	10.40





## SCHEDULE T

## WALL TYPES



## STYLE 6B

## Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for outside wiring.



## STYLE 5B

## Dull Black Finish

For Plated Finishes Add 70%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

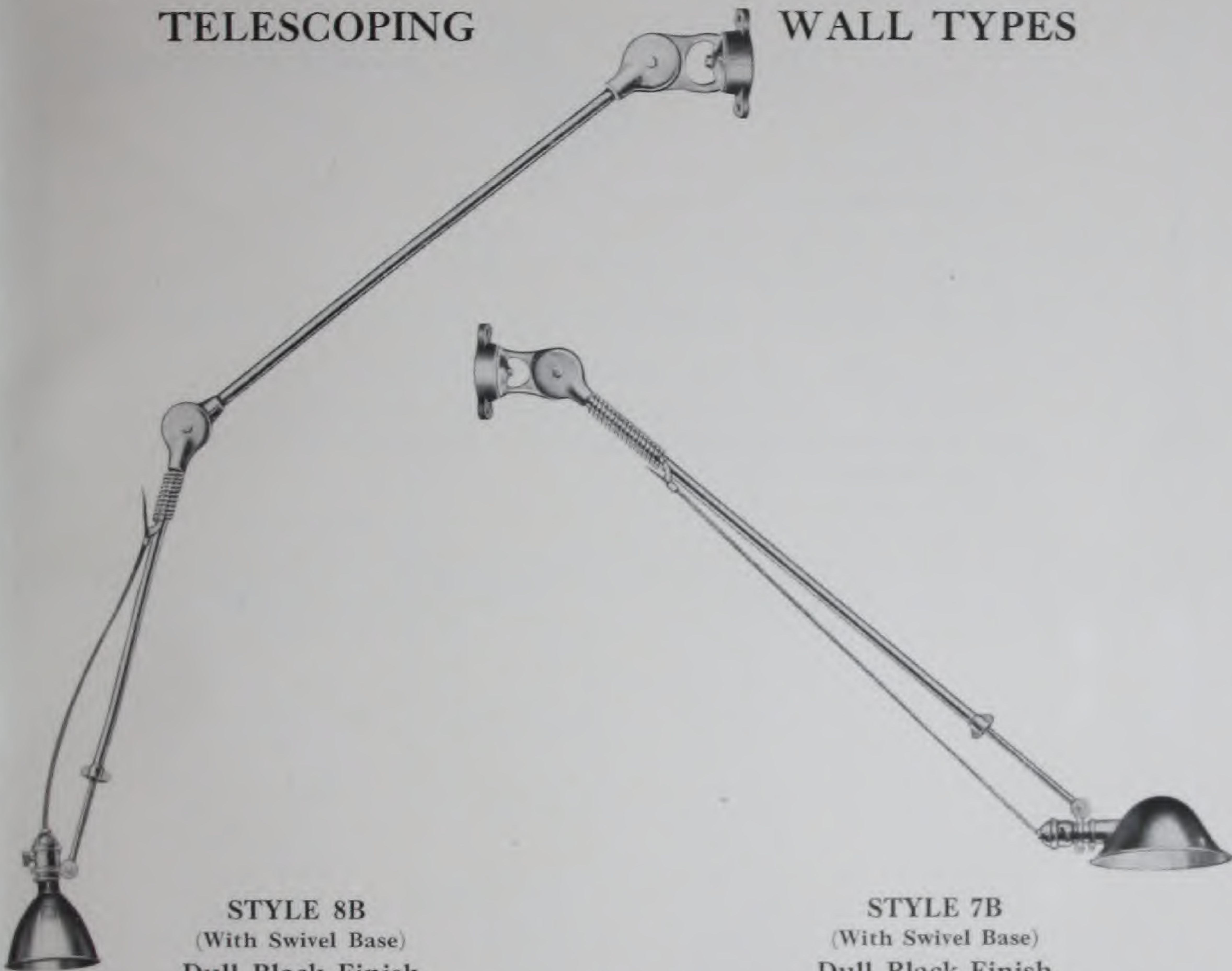
Catalog No.	Length Over All Except Socket and Reflector	Length Over All with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
5B-1	2 feet	2 $\frac{2}{3}$ feet	\$6.25	\$10.10
5B-2	3 feet	4 feet	6.55	10.40
5B-3	4 feet	5 $\frac{1}{3}$ feet	6.95	10.80
5B-4	5 feet	6 $\frac{2}{3}$ feet	7.30	11.15
6B-1	1 foot	No Extension	4.90	8.75
6B-2	1 $\frac{1}{2}$ feet		5.00	8.85
6B-3	2 feet		5.15	9.00
6B-4	2 $\frac{1}{2}$ feet		5.25	9.10
6B-5	3 feet		5.40	9.25



SCHEDULE T

TELESCOPING

WALL TYPES



**STYLE 8B**  
(With Swivel Base)  
Dull Black Finish

**STYLE 7B**  
(With Swivel Base)  
Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

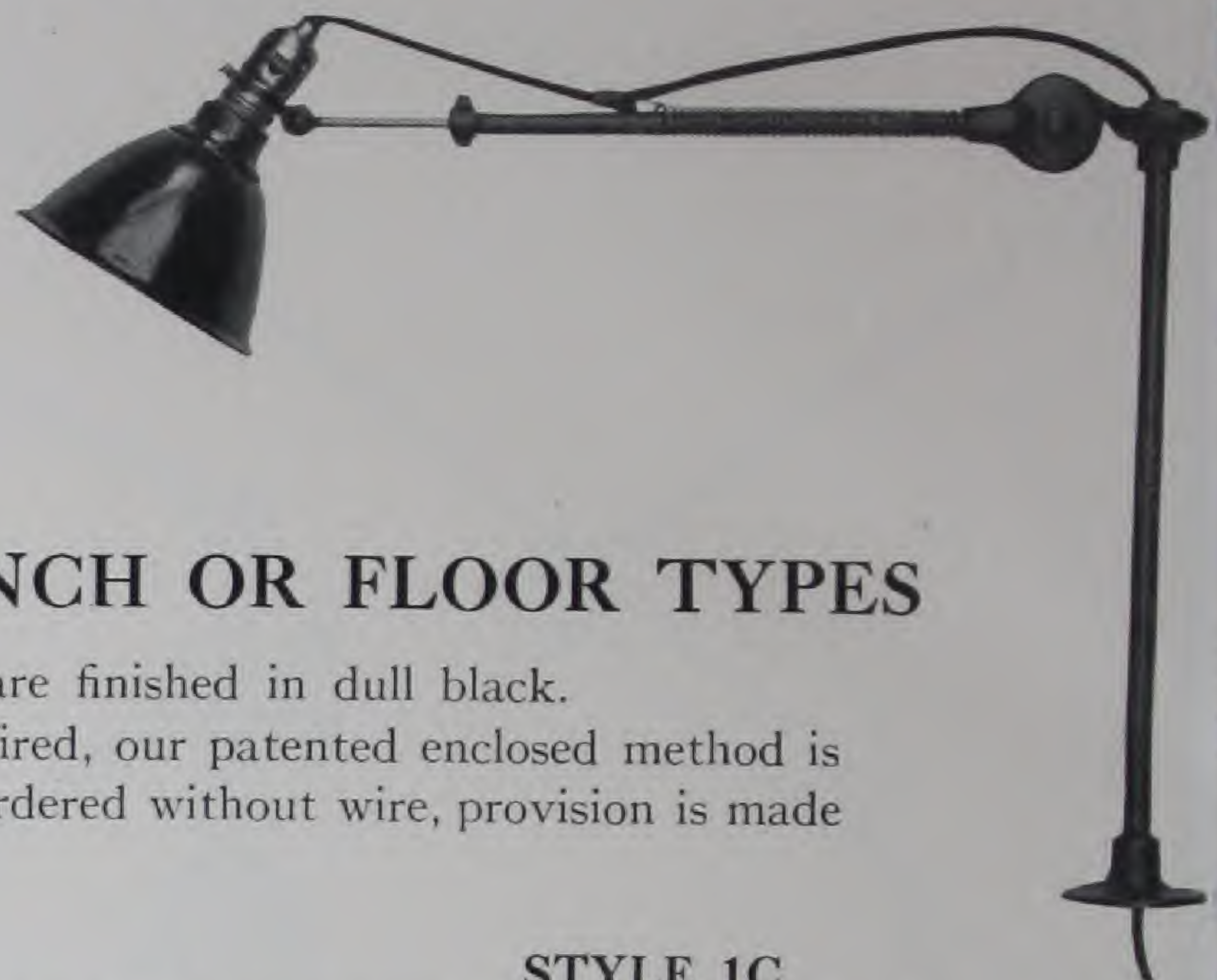
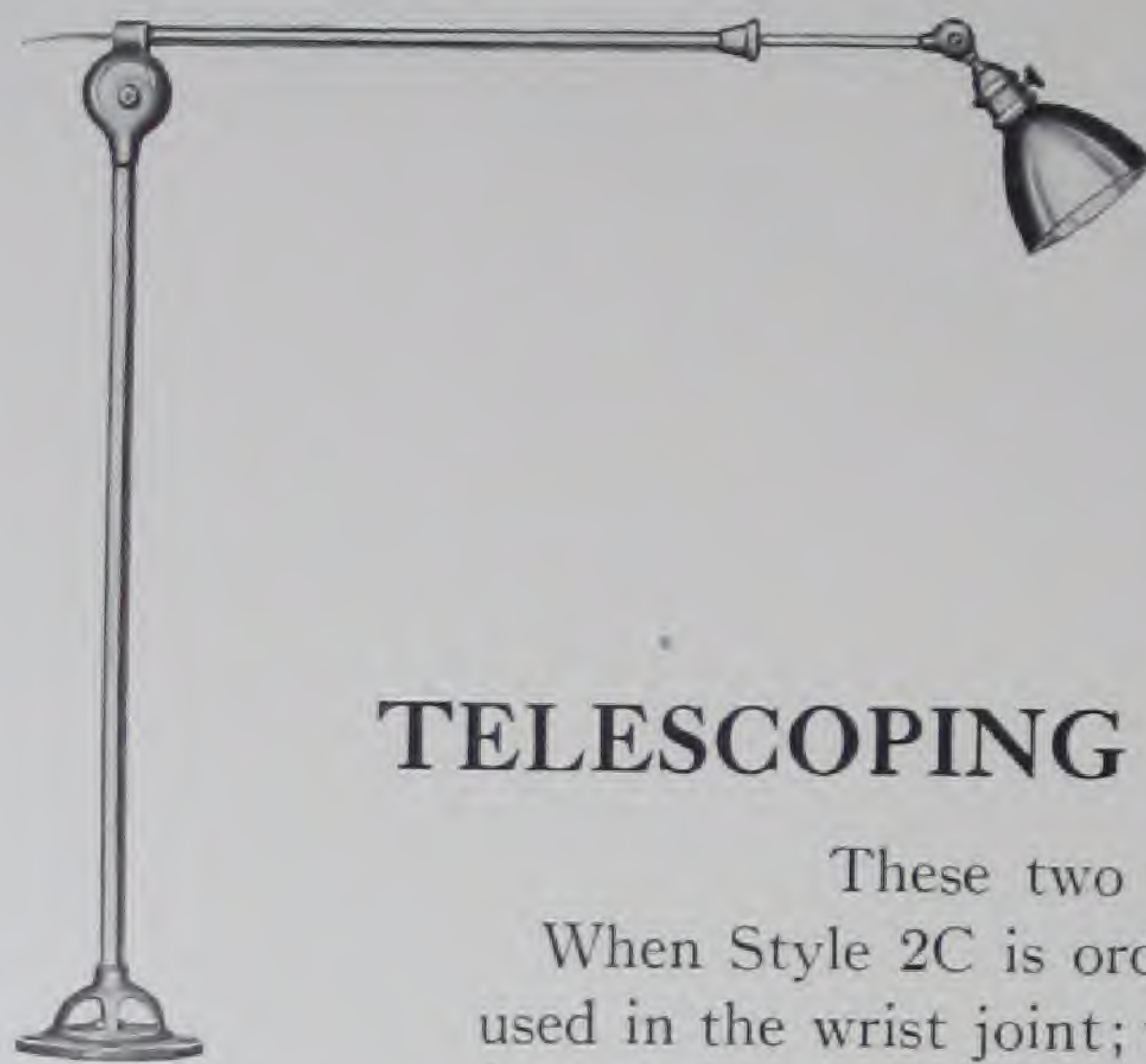
For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Tube	Length of Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
7B-1	1 foot	2 feet	\$4.90	\$8.75
7B-2	1½ feet	3 feet	5.20	9.05
7B-3	2 feet	4 feet	5.50	9.35
7B-4	2½ feet	5 feet	5.90	9.75
7B-5	3 feet	6 feet	6.25	10.10
7B-6	4 feet	8 feet	6.55	10.40
7B-7	5 feet	10 feet	6.95	10.80
8B-1	1 foot	18 inches	5.50	9.35
8B-2	1½ feet	27 inches	5.90	9.75
8B-3	2 feet	36 inches	6.25	10.10
8B-4	2½ feet	43 inches	6.55	10.40
8B-5	3 feet	54 inches	7.30	11.15
8B-6	4 feet	72 inches	7.60	11.45
8B-7	5 feet	90 inches	8.00	11.85





## SCHEDULE T



## TELESCOPING BENCH OR FLOOR TYPES

These two types are finished in dull black.

When Style 2C is ordered wired, our patented enclosed method is used in the wrist joint; when ordered without wire, provision is made for outside wiring.

## STYLE 2C

(With Swivel Base)

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

## STYLE 1C

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Secondary Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
1C-1	1 foot	12 inches	22 inches	\$4.90	\$8.75
1C-2	1 foot	18 inches	33 inches	5.20	9.05
1C-3	1 foot	24 inches	44 inches	5.55	9.40
1C-4	1½ feet	12 inches	22 inches	5.00	8.85
1C-5	1½ feet	18 inches	33 inches	5.35	9.20
1C-6	1½ feet	24 inches	44 inches	5.65	9.50
1C-7	2 feet	12 inches	22 inches	5.15	9.00
1C-8	2 feet	18 inches	33 inches	5.45	9.30
1C-9	2 feet	24 inches	44 inches	5.80	9.65
1C-10	3 feet	12 inches	22 inches	5.35	9.50
1C-11	3 feet	18 inches	33 inches	5.65	9.80
1C-12	3 feet	24 inches	44 inches	6.05	10.20
1C-13	4 feet	12 inches	22 inches	5.55	9.70
1C-14	4 feet	18 inches	33 inches	5.90	10.05
1C-15	4 feet	24 inches	44 inches	6.25	10.40
1C-16	5 feet	12 inches	22 inches	5.70	9.85
1C-17	5 feet	18 inches	33 inches	6.10	10.25
1C-18	5 feet	24 inches	44 inches	6.40	10.55
2C-1	1 foot	12 inches	22 inches	6.25	10.40
2C-2	1 foot	18 inches	34 inches	6.60	10.75
2C-3	1 foot	24 inches	46 inches	6.95	11.10
2C-4	1½ feet	12 inches	22 inches	6.40	10.55
2C-5	1½ feet	18 inches	34 inches	6.75	10.90
2C-6	1½ feet	24 inches	46 inches	7.10	11.25
2C-7	2 feet	12 inches	22 inches	6.55	10.70
2C-8	2 feet	18 inches	34 inches	6.90	11.05
2C-9	2 feet	24 inches	46 inches	7.20	11.35
2C-10	3 feet	12 inches	22 inches	6.75	11.30
2C-11	3 feet	18 inches	34 inches	6.95	11.50
2C-12	3 feet	24 inches	46 inches	7.15	11.70
2C-13	4 feet	12 inches	22 inches	6.95	11.50
2C-14	4 feet	18 inches	34 inches	7.15	11.70
2C-15	4 feet	24 inches	46 inches	7.35	11.90
2C-16	5 feet	12 inches	22 inches	7.15	11.70
2C-17	5 feet	18 inches	34 inches	7.35	11.90
2C-18	5 feet	24 inches	46 inches	7.55	12.10



SCHEDULE T

TELESCOPING BENCH OR FLOOR TYPES



STYLE 3C

(With Swivel Base)

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Secondary Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
3C-1	1 foot	12 inches	22 inches	\$6.25	\$9.75
3C-2	1 foot	18 inches	33 inches	6.60	10.10
3C-3	1 foot	24 inches	44 inches	6.95	10.45
3C-4	1½ feet	12 inches	22 inches	6.40	9.90
3C-5	1½ feet	18 inches	33 inches	6.75	10.25
3C-6	1½ feet	24 inches	44 inches	7.10	10.60
3C-7	2 feet	12 inches	22 inches	6.55	10.05
3C-8	2 feet	18 inches	33 inches	6.90	10.40
3C-9	2 feet	24 inches	44 inches	7.20	10.70
3C-10	3 feet	12 inches	22 inches	6.90	10.75
3C-11	3 feet	18 inches	33 inches	7.20	11.05
3C-12	3 feet	24 inches	44 inches	7.55	11.40
3C-13	4 feet	12 inches	22 inches	7.20	11.05
3C-14	4 feet	18 inches	33 inches	7.55	11.40
3C-15	4 feet	24 inches	44 inches	7.90	11.75
3C-16	5 feet	12 inches	22 inches	7.55	11.40
3C-17	5 feet	18 inches	33 inches	7.90	11.75
3C-18	5 feet	24 inches	44 inches	8.25	12.10



STYLE 4C

(With Double Arms)

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Upright Tube	Length of Each Secondary Tube	Length of Each Secondary Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Sockets and Reflectors
4C-1	1 foot	12 inches	22 inches	\$8.30	\$15.30
4C-2	1 foot	18 inches	33 inches	8.65	15.65
4C-3	1 foot	24 inches	44 inches	9.05	16.05
4C-4	1½ feet	12 inches	22 inches	8.45	15.45
4C-5	1½ feet	18 inches	33 inches	8.80	15.80
4C-6	1½ feet	24 inches	44 inches	9.15	16.15
4C-7	2 feet	12 inches	22 inches	8.60	15.60
4C-8	2 feet	18 inches	33 inches	9.00	16.00
4C-9	2 feet	24 inches	44 inches	9.30	16.30
4C-10	3 feet	12 inches	22 inches	8.80	16.50
4C-11	3 feet	18 inches	33 inches	9.15	16.85
4C-12	3 feet	24 inches	44 inches	9.50	17.20
4C-13	4 feet	12 inches	22 inches	9.05	16.75
4C-14	4 feet	18 inches	33 inches	9.35	17.00
4C-15	4 feet	24 inches	44 inches	9.70	17.40
4C-16	5 feet	12 inches	22 inches	9.25	16.95
4C-17	5 feet	18 inches	33 inches	9.55	17.25
4C-18	5 feet	24 inches	44 inches	9.90	17.60





## SCHEDULE T

## BENCH OR FLOOR TYPES

## STYLE 5C

## Dull Black Finish

For Plated Finishes Add 70%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request



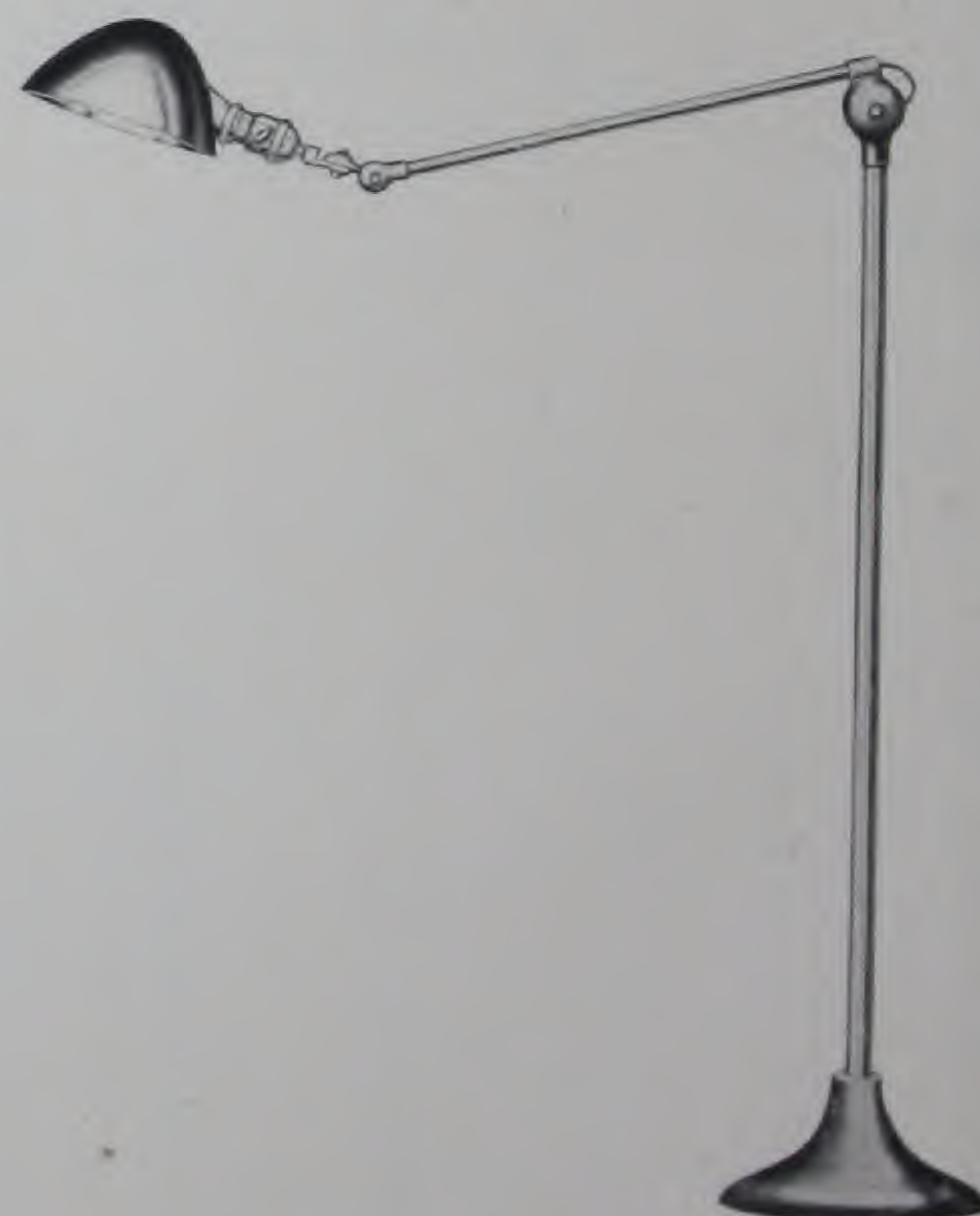
Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Secondary Tube with Extension	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
5C-1	1 foot	12 inches	22 inches	\$7.30	\$10.80
5C-2	1 foot	18 inches	33 inches	7.65	11.15
5C-3	1 foot	24 inches	44 inches	8.00	11.50
5C-4	1½ feet	12 inches	22 inches	7.45	10.95
5C-5	1½ feet	18 inches	33 inches	7.80	11.30
5C-6	1½ feet	24 inches	44 inches	8.10	11.60
5C-7	2 feet	12 inches	22 inches	7.55	11.05
5C-8	2 feet	18 inches	33 inches	7.90	11.40
5C-9	2 feet	24 inches	44 inches	8.25	11.75
5C-10	3 feet	12 inches	22 inches	7.80	11.65
5C-11	3 feet	18 inches	33 inches	8.10	11.95
5C-12	3 feet	24 inches	44 inches	8.45	12.30
5C-13	4 feet	12 inches	22 inches	8.00	11.85
5C-14	4 feet	18 inches	33 inches	8.35	12.20
5C-15	4 feet	24 inches	44 inches	8.70	12.55
5C-16	5 feet	12 inches	22 inches	8.20	12.05
5C-17	5 feet	18 inches	33 inches	8.55	12.40
5C-18	5 feet	24 inches	44 inches	8.90	12.75

## STYLE 6C

## Dull Black Finish

For Plated Finishes Add 70%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for outside wiring.



Catalog No.	Length of Upright Tube	Length of Secondary Tube	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
6C-1	1 foot	12 inches	\$6.95	\$10.45
6C-2	1 foot	18 inches	7.30	10.80
6C-3	1 foot	24 inches	7.65	11.15
6C-4	1½ feet	12 inches	7.10	10.60
6C-5	1½ feet	18 inches	7.45	10.95
6C-6	1½ feet	24 inches	7.80	11.30
6C-7	2 feet	12 inches	7.20	10.70
6C-8	2 feet	18 inches	7.55	11.05
6C-9	2 feet	24 inches	7.90	11.40
6C-10	3 feet	12 inches	7.45	11.30
6C-11	3 feet	18 inches	7.80	11.65
6C-12	3 feet	24 inches	8.10	11.95
6C-13	4 feet	12 inches	7.65	11.50
6C-14	4 feet	18 inches	8.00	11.85
6C-15	4 feet	24 inches	8.35	12.20
6C-16	5 feet	12 inches	7.85	11.70
6C-17	5 feet	18 inches	8.20	12.05
6C-18	5 feet	24 inches	8.55	12.40



SCHEDULE T

FOR DRAFTING-TABLES



**STYLE 8C**  
**Dull Black Finish**

**STYLE 7C**  
(With Swivel Base)  
**Dull Black Finish**

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for outside wiring.

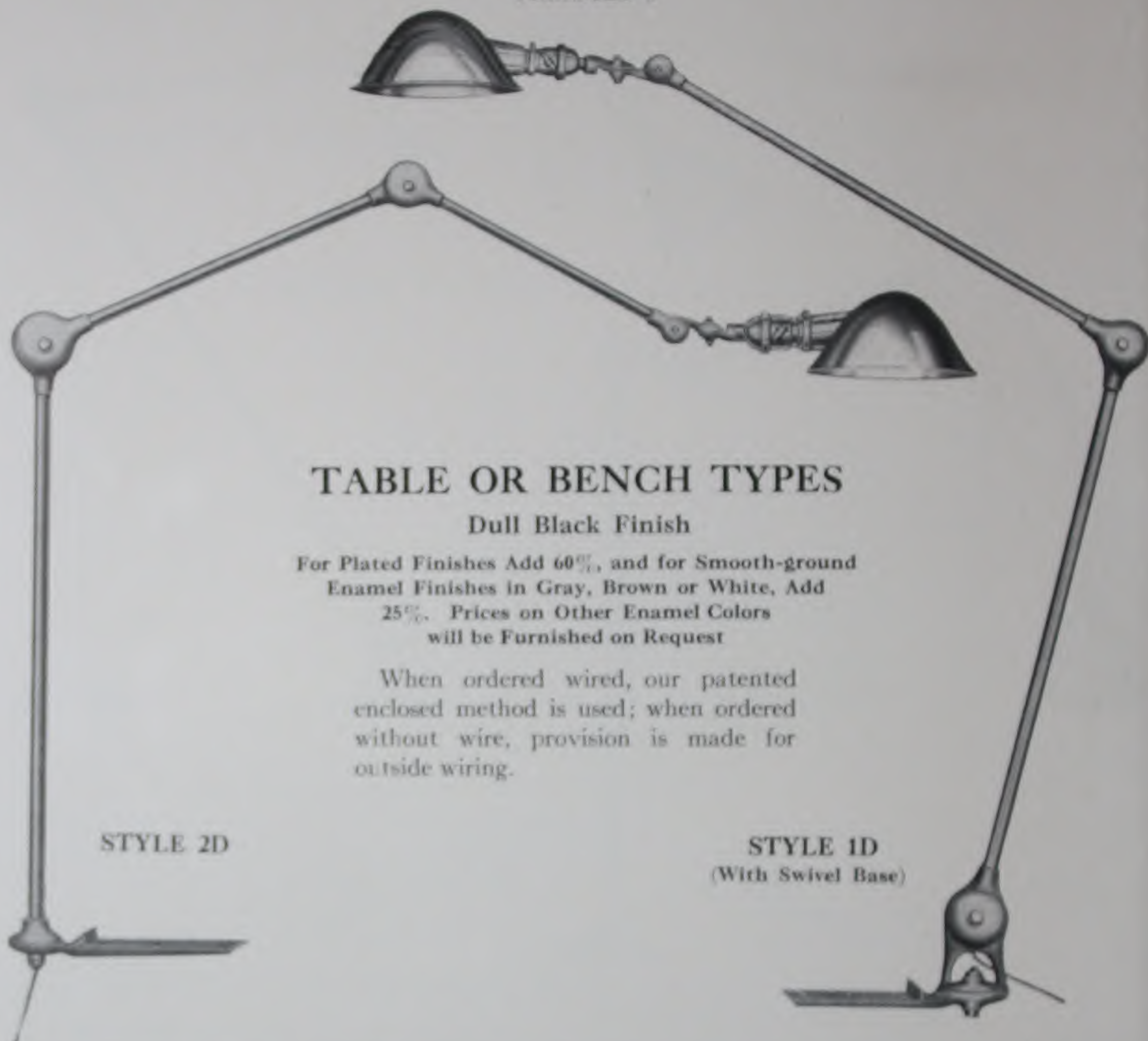
**For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%.  
Prices on Other Enamel Colors will be Furnished on Request**

Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Third Tube	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
7C-1	1 foot	1 foot	.....	\$6.95	\$10.80
7C-2	1 foot	1½ feet	.....	7.10	10.95
7C-3	1 foot	2 feet	.....	7.65	11.50
7C-4	1½ feet	1 foot	.....	7.10	10.95
7C-5	1½ feet	1½ feet	.....	7.20	11.05
7C-6	1½ feet	2 feet	.....	7.35	11.20
7C-7	2 feet	1 foot	.....	7.20	11.05
7C-8	2 feet	1½ feet	.....	7.35	11.20
7C-9	2 feet	2 feet	.....	7.50	11.35
8C-1	1 foot	6 inches	6 inches	6.95	10.80
8C-2	1 foot	9 inches	9 inches	7.10	10.95
8C-3	1 foot	12 inches	12 inches	7.65	11.50
8C-4	1½ feet	6 inches	6 inches	7.10	10.95
8C-5	1½ feet	9 inches	9 inches	7.20	11.05
8C-6	1½ feet	12 inches	12 inches	7.35	11.20
8C-7	2 feet	6 inches	6 inches	7.20	11.05
8C-8	2 feet	9 inches	9 inches	7.35	11.20
8C-9	2 feet	12 inches	12 inches	7.50	11.35





## SCHEDULE T



## TABLE OR BENCH TYPES

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground  
Enamel Finishes in Gray, Brown or White, Add  
25%. Prices on Other Enamel Colors  
will be Furnished on Request

When ordered wired, our patented  
enclosed method is used; when ordered  
without wire, provision is made for  
outside wiring.

STYLE 2D

STYLE 1D  
(With Swivel Base)

Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Third Tube	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
1D-1	1 foot	1 foot		\$6.95	\$10.80
1D-2	1 foot	1½ feet		7.10	10.95
1D-3	1 foot	2 feet		7.65	11.50
1D-4	1½ feet	1 foot		7.10	10.95
1D-5	1½ feet	1½ feet		7.20	11.05
1D-6	1½ feet	2 feet		7.35	11.20
1D-7	2 feet	1 foot		7.20	11.05
1D-8	2 feet	1½ feet		7.35	11.20
1D-9	2 feet	2 feet		7.50	11.35
2D-1	1 foot	6 inches	6 inches	6.95	10.80
2D-2	1 foot	9 inches	9 inches	7.10	10.95
2D-3	1 foot	12 inches	12 inches	7.65	11.50
2D-4	1½ feet	6 inches	6 inches	7.10	10.95
2D-5	1½ feet	9 inches	9 inches	7.20	11.05
2D-6	1½ feet	12 inches	12 inches	7.35	11.20
2D-7	2 feet	6 inches	6 inches	7.20	11.05
2D-8	2 feet	9 inches	9 inches	7.35	11.20
2D-9	2 feet	12 inches	12 inches	7.50	11.35



SCHEDULE T

TABLE OR  
BENCH TYPES

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for wiring around the joints.



STYLE 3D

(With Swivel Base)

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request.



STYLE 4D

Dull Black Finish

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%. Prices on Other Enamel Colors will be Furnished on Request.



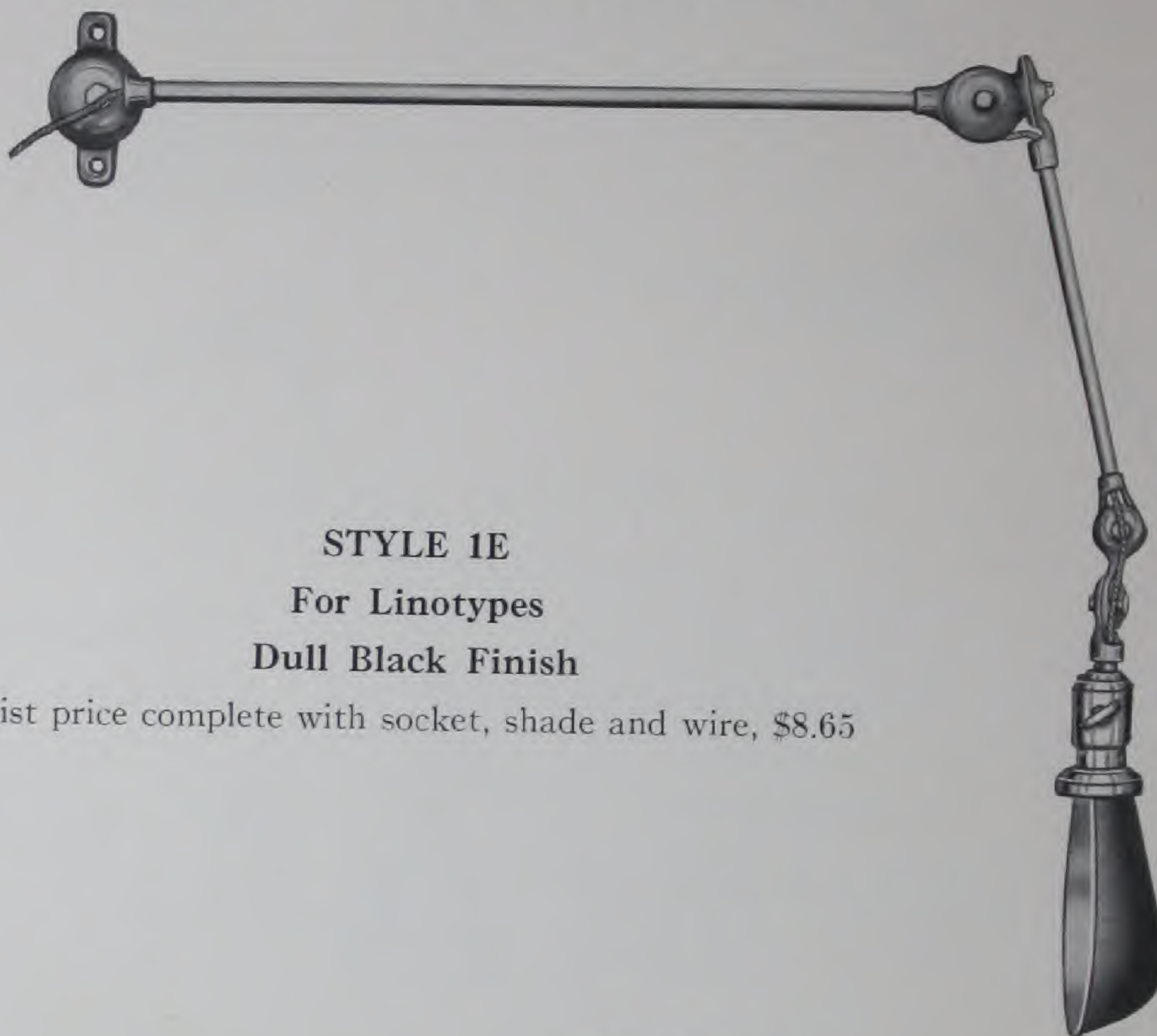
Catalog No.	Length of Upright Tube	Length of Secondary Tube	Length of Third Tube	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
3D-1	1 foot	1 foot	.....	\$7.85	\$11.70
3D-2	1 foot	1½ feet	.....	8.00	11.85
3D-3	1 foot	2 feet	.....	8.15	12.00
3D-4	1½ feet	1 foot	.....	8.00	11.85
3D-5	1½ feet	1½ feet	.....	8.15	12.00
3D-6	1½ feet	2 feet	.....	8.30	12.15
3D-7	2 feet	1 foot	.....	8.15	12.00
3D-8	2 feet	1½ feet	.....	8.30	12.15
3D-9	2 feet	2 feet	.....	8.45	12.30
4D-1	1 foot	6 inches	6 inches	7.85	11.70
4D-2	1 foot	9 inches	9 inches	8.00	11.85
4D-3	1 foot	12 inches	12 inches	8.15	12.00
4D-4	1½ feet	6 inches	6 inches	8.00	11.85
4D-5	1½ feet	9 inches	9 inches	8.15	12.00
4D-6	1½ feet	12 inches	12 inches	8.30	12.15
4D-7	2 feet	6 inches	6 inches	8.15	12.00
4D-8	2 feet	9 inches	9 inches	8.30	12.15
4D-9	2 feet	12 inches	12 inches	8.45	12.30





## SCHEDULE T

## SPECIAL ARMS FOR LINOTYPE AND MONOTYPE MACHINES

**STYLE 1E****For Linotypes****Dull Black Finish**

List price complete with socket, shade and wire, \$8.65

**STYLE 2E****For Monotypes****Dull Black Finish**

List price complete with socket, shade and wire, \$8.35.



SCHEDULE T

FOR MACHINE, BENCH OR FLOOR



STYLE 3E  
Dull Black Finish



STYLE 4E  
Dull Black Finish

When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for wiring around the joints.

For Plated Finishes Add 60%, and for Smooth-ground Enamel Finishes in Gray, Brown or White, Add 25%.  
Prices on Other Enamel Colors will be Furnished on Request

Catalog No.	Length of Upright Tube	Length of Movable Tube	List Price Each for Arm Only	List Price Each for Arm, Wire, Socket and Reflector
3E-1	1 foot	1 foot	\$6.25	\$10.10
3E-2	1 foot	1½ feet	6.60	10.45
3E-3	1 foot	2 feet	6.95	10.80
3E-4	1½ feet	1 foot	7.30	11.45
3E-5	1½ feet	1½ feet	7.65	11.80
3E-6	1½ feet	2 feet	8.00	12.15
4E-1	.....	1 foot	5.90	9.40
4E-2	.....	1½ feet	6.10	9.60
4E-3	.....	2 feet	6.30	9.80
4E-4	.....	2½ feet	6.50	10.00
4E-5	.....	3 feet	6.65	10.15





## SCHEDULE T

**ARMS FOR LIGHTING SEWING-MACHINES**

These arms are designed for permanent connection to outlet boxes of conduit systems for lighting sewing-machines in garment factories. Working-drawings for installing them will be sent on request.

All three types are finished in dull black. They are wired by our patented enclosed method when ordered wired; when ordered without wire, provision is made for outside wiring.

Style 1F is designed for use where the same class of work is carried on continually, as it has only a single up and down action. Style 2F and Style 3F provide for much freer action, and are suitable for use where the work varies.

**STYLE 1F**

Arm only, \$2.80 list. Arm with wiring, socket and reflector, \$4.85 list.

**STYLE 2F**

Arm only, \$3.85 list. Arm with wiring, socket and reflector, \$7.00 list.

**STYLE 3F**

Arm only, \$4.50 list. Arm with wiring, socket and reflector, \$8.05 list.



SCHEDULE T

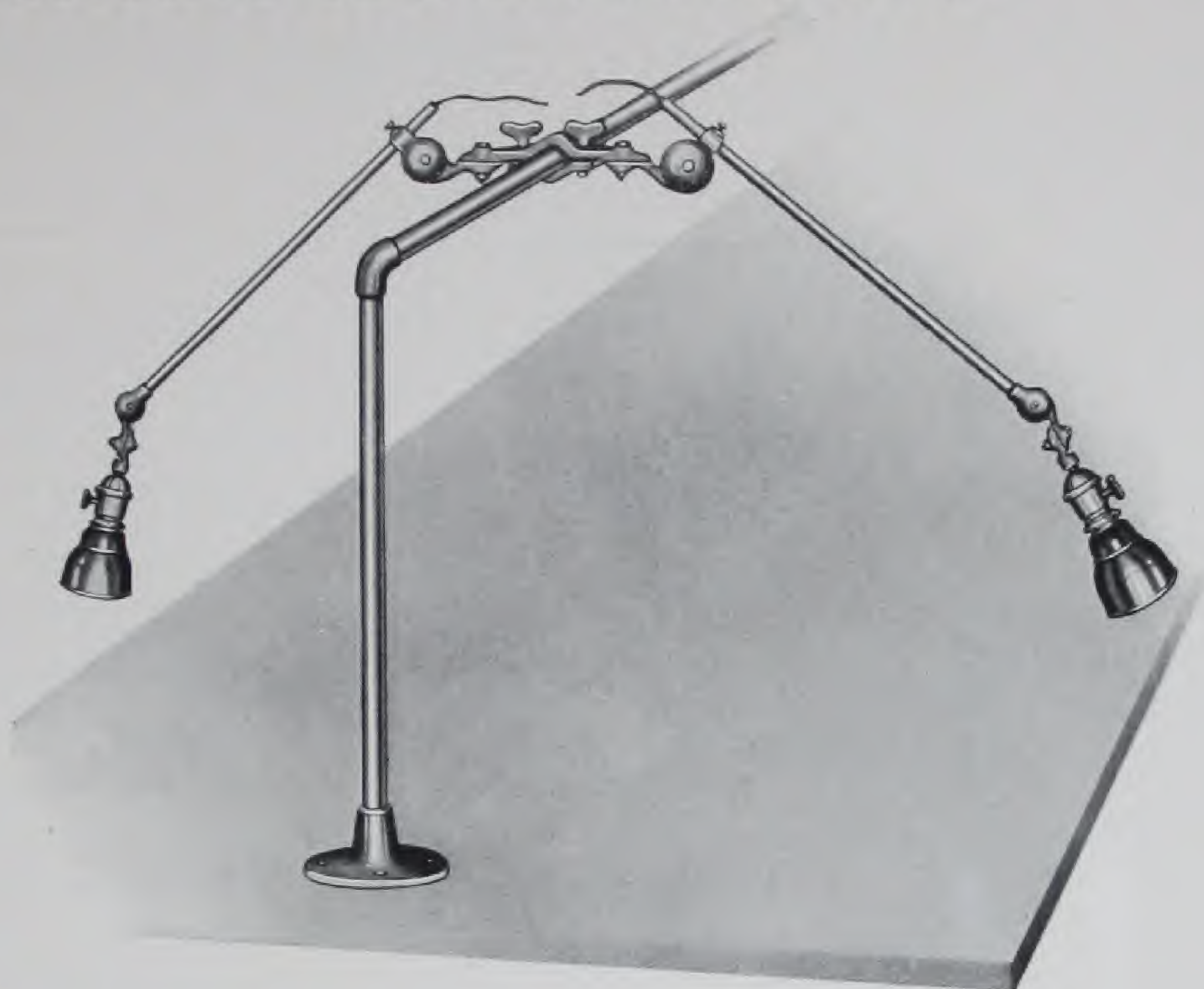
# ARMS FOR LIGHTING SEWING-MACHINES

## STYLE 6F

(With Double Arms)

**Dull Black Finish**

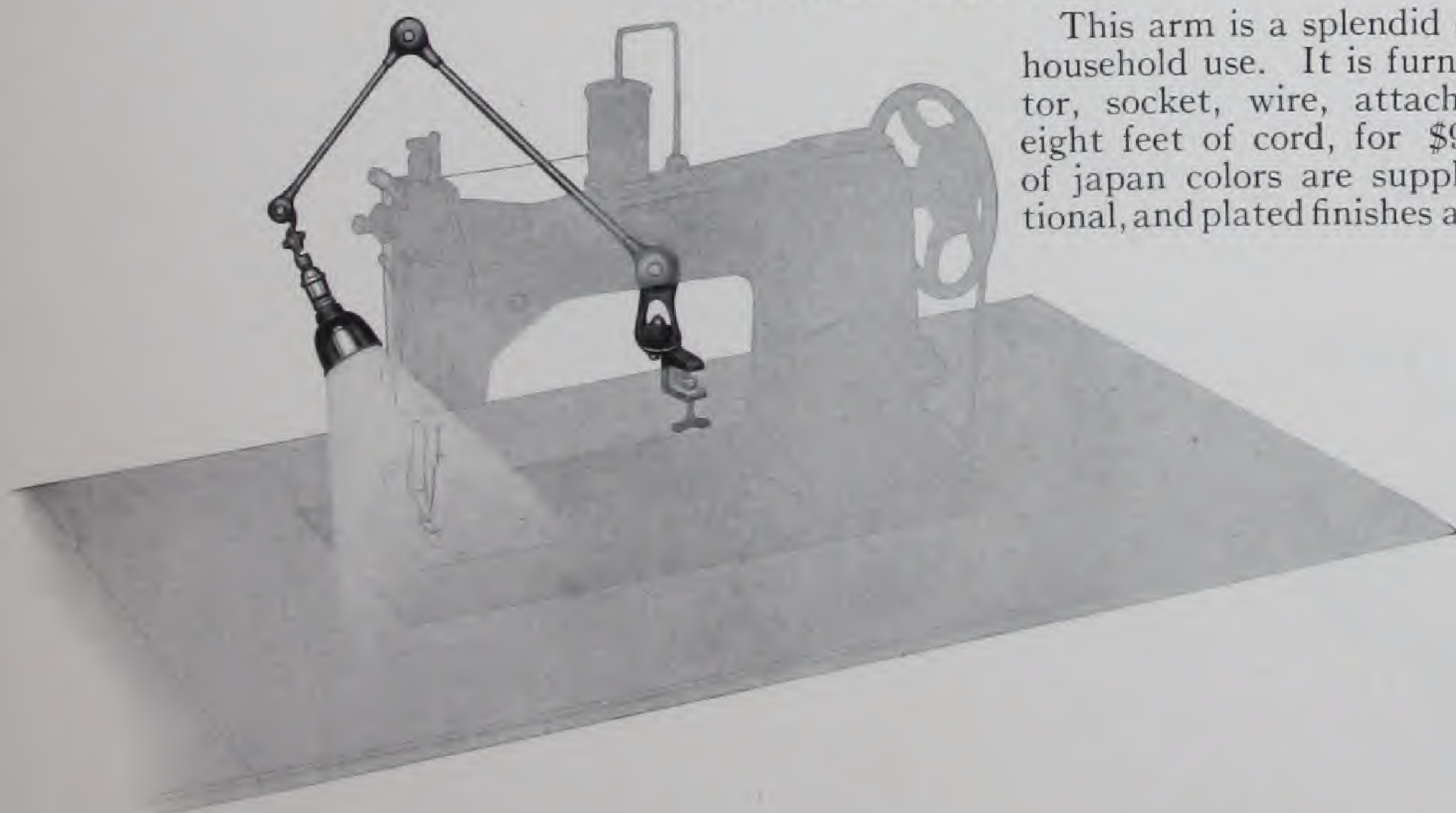
This arm is designed especially for use on sewing-tables. When ordered wired, our patented enclosed method is used; when ordered without wire, provision is made for wiring around the joints.



Catalog No.	Length of Tubes	List Price Each for Arm Only	List Price Each for Arm, Wire, Sockets and Reflectors
6F-1	1 foot	\$11.10	\$18.10
6F-2	2 feet	11.45	18.45
6F-3	3 feet	11.85	18.85

## STYLE 7F

**Dull Black Finish**



This arm is a splendid one to feature for household use. It is furnished with reflector, socket, wire, attachment plug, and eight feet of cord, for \$9.70 list. Choice of japan colors are supplied at 5% additional, and plated finishes at 50% additional.





## SCHEDULE T

## PORTABLE FOR GARAGES AND FACTORIES



### STYLE 1G

This portable is provided with a permanent upright, and a movable arm, so that light can be thrown from above and below at the same time.

The height over all is 6 feet. The movable arm is 2 feet long and extends to 4 feet. It reaches any position, merely by pulling the reflector where the light is needed. The larger reflector accommodates Mazda lamps up to 200 watts.

The entire portable is strong and durable. It is mounted on ball-bearing casters so that it can be moved about easily. The lower arm, when not in use, can be folded against the upright. The finish is olive green.

List price, including sockets and reflectors, completely wired, \$42.85.



SCHEDULE T

## FOR PHOTOGRAPHIC LIGHTING



### STYLE 1H

This type is designed for permanent attachment to the ceiling or wall. It can be directed wherever needed by simply pushing it into position, and it stays there without adjustment. The arm is furnished with a porcelain-enameled angle reflector for the 1000-watt Mazda C lamp, and both arm and reflector are finished in olive green.

List price complete, with inside wire, socket and reflector, \$24.30.

### STYLE 2H

This portable is mounted on ball-bearing casters. It is 6 feet high over all, and is elevated by a light turn of the crank to 9 feet. The extension will stay at any height without locking. The reflector is a porcelain-enameled angle type for the 1000-watt Mazda C lamp. The friction joints permit the reflector to be moved to any position, and then hold it in place without adjustment. The entire portable and reflector are finished in olive green.

List price complete, with inside wire, socket and reflector, \$92.90.







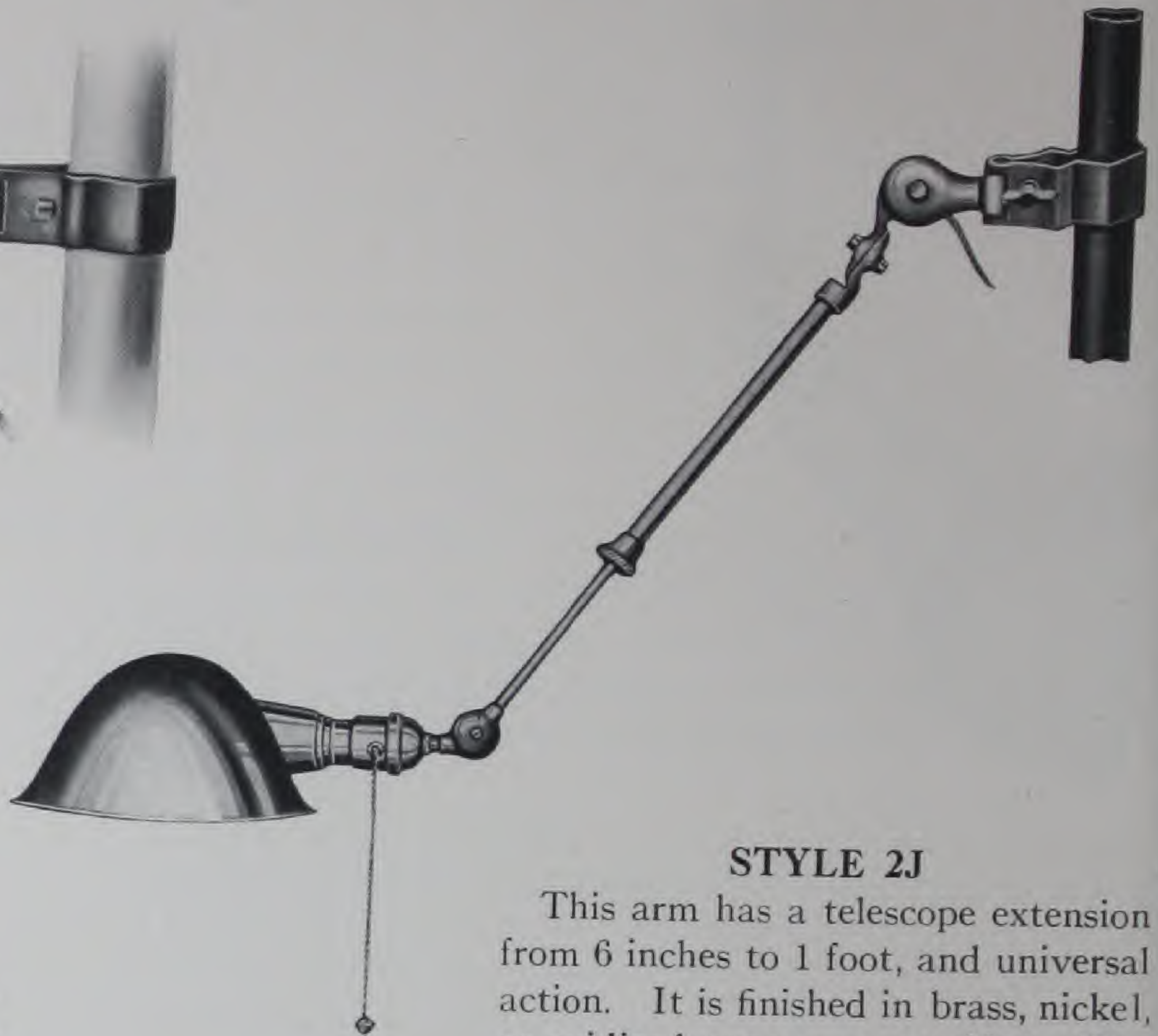
## SCHEDULE T

## FOR BED AND DESK LIGHTING

**STYLE 1J**

This arm is finished in brass, nickel, or oxidized copper, as specified. The clamps grip any round or square object from  $\frac{3}{8}$  inch to 2 inches in diameter.

List price for arm, reflector, socket, attachment plug and 8 feet of silk cord, \$7.15.

**STYLE 2J**

This arm has a telescope extension from 6 inches to 1 foot, and universal action. It is finished in brass, nickel, or oxidized copper, as specified. The clamps grip any round or square object from  $\frac{3}{8}$  inch to 2 inches in diameter.

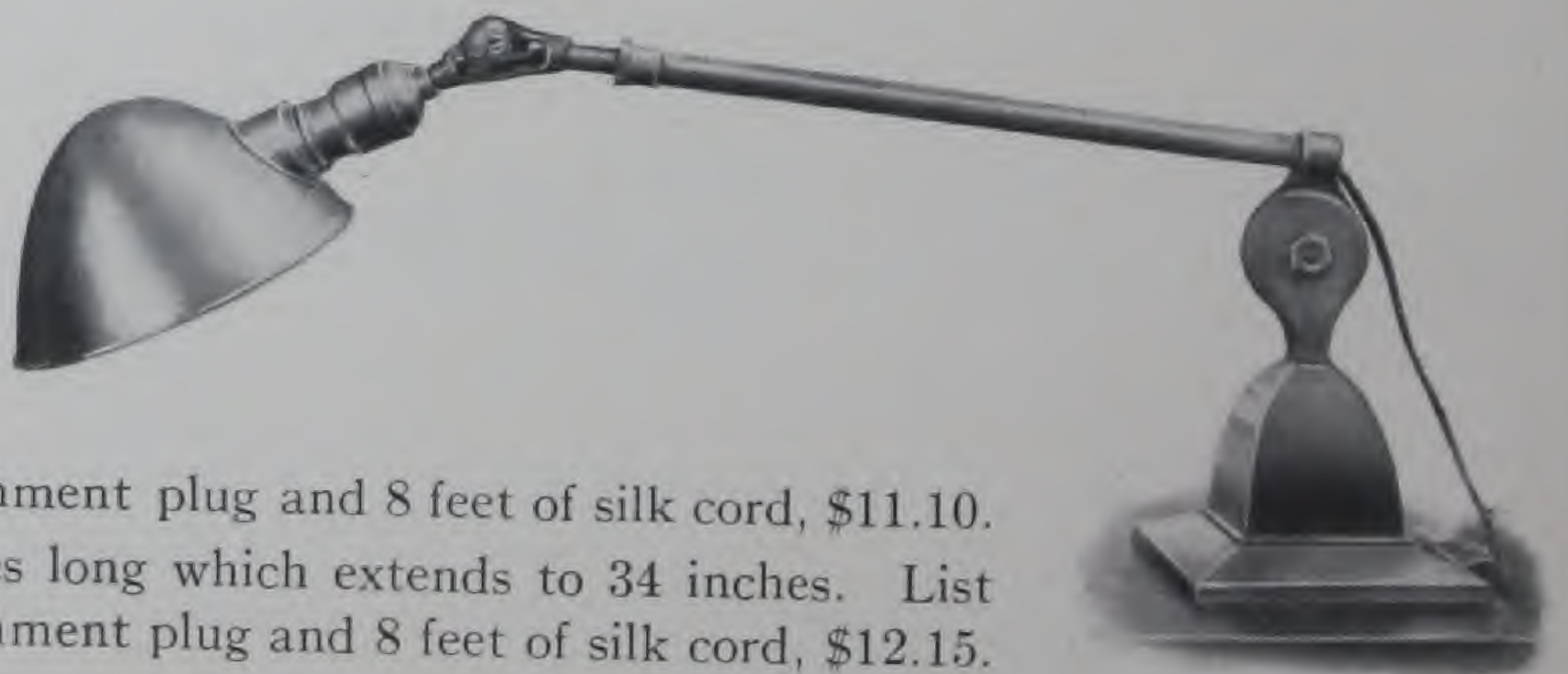
List price for arm, reflector, socket, attachment plug and 8 feet of silk cord, \$10.70.

**STYLE 1K**

This arm is finished in brass, nickel, or oxidized copper, as specified.

No. 1K-1 has a 1-foot tube which extends to 22 inches. List price, including reflector, socket, attachment plug and 8 feet of silk cord, \$11.10.

No. 1K-2 has a tube 1 foot 6 inches long which extends to 34 inches. List price, including reflector, socket, attachment plug and 8 feet of silk cord, \$12.15.





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